

Appendix A
(REPLACEMENT SHEETS AND
ANNOTATED SHEETS SHOWING CHANGES)

FIG. 2A (Continued) FIG. 2B

SENSUS:	cacaagcctc agcrttyggg gagarctcgt gtttcaaca agcgtccamg gccttrtact	900
CEF94-A:	..... g.t.... g..... C..... C..... g....	900
D6948-A:	..... a.C.... a..... a..... a.....	900
TY89-A:	-----	-----
SENSUS:	gggygcyacc atctacctya taggcttga tgggacwgcg gtaatcacca grgctgtggc	960
CEF94-A:	...C..C... ..C..... C..... a.... g.....	960
D6948-A:	...t..t... ..t..... t..... t.... a.....	960
TY89-A:	-----	-----
SENSUS:	cgcaracaat gggctracgr cgggcacyga caacctwtg ccattcaatm ttgtgattcc	1020
CEF94-A:	...a..... g...a..... C..... t.... a.....	1020
D6948-A:	...g..... a...g..... t.... a.... C.....	1020
TY89-A:	-----	-----
SENSUS:	aacmarcgag ataaccagc caatcacatc catcaaaactg gagatagtga cctccaaaag	1080
CEF94-A:	...a.a.... ..C.g.... ..C.....	1080
D6948-A:	...C.g.... ..C.....	1080
TY89-A:	-----	-----
SENSUS:	tgggtgtcag gcrggggac agatgtcrtg gtcrgcaagw gggagcctag cagtgcgat	1140
CEF94-A:	..... a..... g..... g.... a.....	1140
D6948-A:	..... g..... a..... a.... t.....	1140
TY89-A:	-----	-----
SENSUS:	ccaygtgtgc aactatccag gggccctccg tcccgctcacr ctatgrgcct acgaaagagt	1200
CEF94-A:	...t..... ..C..... g..... g....	1200
D6948-A:	...C..... ..C..... a.... a.....	1200
TY89-A:	-----	-----
SENSUS:	ggcaacagga tcygtcgta cggctgcgyg ggtgagcaac ttcgagctga tcccaaatcc	1260
CEF94-A:	..... C..... t.... ..C.....	1260
D6948-A:	..... t.... ..C.....	1260
TY89-A:	-----	-----

FIG. 2A (Contd.) FIG. 2C

CONSENSUS: tgaactagca aagaacctgg tyacagaata cggccgattt gaccaggag ccatgaacta 1320
CEF94-A:t..... 1320
D6948-A:C..... 1320
TY89-A: -----

CONSENSUS: cacaaaattg atactgagtg agagggaccg tcttggcatc aagaccgtmt ggccaacaag 1380
CEF94-A:C..... 1380
D6948-A:a..... 1380
TY89-A: -----

CONSENSUS: ggagtacact gactttcgyg artacttcat ggaggtggcc gacctcaact ctcccctgaa 1440
CEF94-A:t..... 1440
D6948-A:g..... 1440
TY89-A: -----

CONSENSUS: gattgcagga gcatttgggt tcaaagacat aatccgggcc mtaaggagga tagctgtgcc 1500
CEF94-A:C.....a..... 1500
D6948-A:t.....C..... 1500
TY89-A: -----

CONSENSUS: ggtgggtctcy acaytgttcc caccygccgc tcccctagcc catgcaattg gggaaggtgt 1560
CEF94-A:C.....t..... 1560
D6948-A:t.....C..... 1560
TY89-A: -----

CONSENSUS: agactacctg ctgggcgatg aggcacaggc tgcttcagga actgctcgag ccgcgtcagg 1620
CEF94-A: 1620
D6948-A: 1620
TY89-A: -----

CONSENSUS: aaaagcaaga gctgcctcag gccgcataag gcagctract ctgcgcggcg acaaggggta 1680
CEF94-A:g..... 1680
D6948-A:a..... 1680
TY89-A: -----

FIG. 2* (Contd.) FIG. 2D

CONSENSUS: cgaggtagtc gcgaatctrt tycaggtgcc ccagaatccy gtagtcgacg ggattctygc 1740
CEF94-A:a. .C.....Ct.. 1740
D6948-A:g. .t.....tC.. 1740
TY89-A: -----

CONSENSUS: ttcacctggg rtactccgcg gygcacacaa cctcgactgc gtgttragag aggggtgccac 1800
CEF94-A:g.....t.....a..... 1800
D6948-A:a.....C.....g..... 1800
TY89-A: -----

CONSENSUS: gctattccct gtggytyatya cgacagtga agaygccatg acacccaaaag caytgaacag 1860
CEF94-A:t..t.C.....t..... 1860
D6948-A:C.C.t.....C..... 1860
TY89-A: -----

CONSENSUS: caaaatgttt gctgtcattg aaggcgtgcg agaagayctc caacctccwt ctcaaaagagg 1920
CEF94-A:C.....t..... 1920
D6948-A:t.....a..... 1920
TY89-A: -----

CONSENSUS: atccttcata cgaactctct cyggacayag agtctatgga tatgctccag atgggggtact 1980
CEF94-A:t.....C..... 1980
D6948-A:C.....t..... 1980
TY89-A: -----

CONSENSUS: tccactggag actgggagag aytacaccgt kgtcccaata gatgatgtct gggacgacag 2040
CEF94-A:C.....t..... 2040
D6948-A:t.....g..... 2040
TY89-A: -----

CONSENSUS: cattatgctg tccaaagayc ccatacctcc tattgtggga acagyggaa aycatgccat 2100
CEF94-A:t.....t.....t..... 2100
D6948-A:C.....C.....C..... 2100
TY89-A: -----

CONSENSUS:	agcttacatg	gatgtgttc	gacccaaagt	cccmattcat	gtggcyatga	cgggagccct	2160
CEF94-A:	.....	.....	.....	..a.....	.....t.....	.....	2160
D6948-A:	.....	.....	.....	..C.....	.....C.....	.....	2160
TY89-A:	-----	-----	-----	-----	-----	-----	

CONSENSUS:	caaygcytrt	ggcgagattg	agaamgtrag	ctttagaagc	accaagctcg	ccactgcaca	2220
CEF94-A:	..t..t.g.	.....	...a.a..	.....	.....	.....	2220
D6948-A:	..C..C.a.	.....	...C.g.	.....	.....	.....	2220
TY89-A:	-----	-----	-----	-----	-----	-----	2220

CONSENSUS:	ccgacttggc	ctyaagtgg	ctggtcccg	wgcattgag	gtraacaccg	ggyccaactg	2280
CEF94-A:	.....	.t.....	.....	a.....	C.t	.a.....	2280
D6948-A:	.....	.C.....	.....	t.....	t.C	.g.....	2280
TY89-A:	-----	-----	-----	-----	-----	-----	2280

CONSENSUS:	ggcracgtyt	atcaaacgtt	tycctcaca	tccmcgmga	ctggacaggy	tmccytacct	2340
CEF94-A:	..a.....c	.....	.c.....	..a.c...	.....c	.c.c.....	2340
D6948-A:	..g.....t	.....	.t.....	..a.c...	.....c	.c.t.....	2340
TY89-A:	-----	-----	.c.....	..c.a...	.....t	.a.c.....	44

CONSENSUS:	caacctwccm	tayctyccac	cmamwgcwg	acgycagtwc	sayctkgccm	tgchgchtc	2400
CEF94-A:	.....a.a	.C.t....	.cat.a..	..C....a.	C.C.t...a	...t.a..	2400
D6948-A:	.....t.a	.C.t....	.cat.a..	..C....a.	g.C.g...a	....c.t..	2400
TY89-A:	.....t.c	.t..C....	.a.ca.t..	...t....t.	C.t.g...C	....a.c..	104

	2460	2460	2460	164			
CONSENSUS:	mgagttcaaa	gagaccccmg	aactcgarr	ygcygtsmgw	gcmatggamg	cwgcwgcmaa	2460
CEF94-A:	a.....	.....C.	.....gag	t..C..ca.a	..a.....a.	..a.a..c..	2460
D6948-A:	a.....	.....C.	.....gag	C..C..ca.a	..C.....a.	..a.a..c..	2460
TY89-A:	C.....	.....a.	.....aga	C..t..gc.t	..a.....C.	..t..t..a..	164

CONSENSUS:	cgtsgaccca	ytrttccrmt	cwgcdctcmr	bgtsttcacg	tggytgaag	araaygggat	2520
CEF94-A:	...g.....	C.a.....aa.	t.a...ag	t.g.....	...C.....	...g.t.....	2520
D6948-A:	...g.....	C.g.....aa.	t.g...ag	C.g.....	...C.....	...g.t.....	2520
TY89-A:	...C.....	t.g....gc.	a.t...ca	g.c.....	...t.....	...a.c.....	224

FIG. 2* (Contd.) FIG. 2F

CONSENSUS: tgtracygay atggcyaaact tgcmtctcag cgacccgaac gmcaymga tgmraattt 2580
CEF94-A: ...g.t..c...c... ..a... ..C..tc... ..Cga..... 2580
D6948-A: ...g.t..t...c... ..a... ..C..tc... ..Cgc..... 2580
TY89-A: ...a..c..c...t.... ..C... ..a..ca... ..aaa..... 284

CONSENSUS: ycthgcaaay gcwccmcarg cmgmgagcaa gtcgcaragr gccaaagtayg gsacrgcwg 2640
CEF94-A: t..t.....c...a..a..a.. ..a..c... ..a..g... ..c... ..g..a..a.. 2640
D6948-A: t..c.....c...a..a..a.. ..a..c... ..a..a... ..c... ..g..a..a.. 2640
TY89-A: c..a.....t...t..c..g.. ..c..a... ..g..g... ..t... ..c..g..t.. 344

CONSENSUS: ctacggagtg gaggcymgrg gccccacdcc agargargca cagagggara aagacacacg 2700
CEF94-A:tc.g... ..a... ..g..a... ..a... ..a... ..a... ..a... 2700
D6948-A:cc.g... ..t... ..g..a... ..a... ..a... ..a... ..a... 2700
TY89-A:ta.a... ..g... ..a..g... ..g... ..g... ..g... ..g... 404

CONSENSUS: gatctcmaag aagatggara cbatgggcat ctacttygca acaccrgaat gggtagcact 2760
CEF94-A:a... ..g... ..g... ..c... ..t... ..t... ..a... ..a... ..a... 2760
D6948-A:a... ..g... ..g... ..t... ..t... ..t... ..a... ..a... ..a... 2760
TY89-A:c... ..a... ..a... ..g... ..c... ..c... ..g... ..g... ..g... 464

CONSENSUS: caaygggcac cgrggsccaa gccccggcca gctvaagtac tggcaraaca camgagaaat 2820
CEF94-A: ...t..... ..a..g... ..a... ..a... ..g... ..g... ..c... ..c... ..c... 2820
D6948-A: ...t..... ..g..g... ..a... ..g... ..g... ..g... ..c... ..c... ..c... 2820
TY89-A: ...c..... ..a..c... ..a... ..c... ..c... ..a... ..a... ..a... ..a... 524

CONSENSUS: accdgahccm aacgaggact aycyagacta ygtgcaygcr gagaagagcc ggttggrtc 2880
CEF94-A: ...g..c..a... ..t... ..t... ..c... ..t..a... ..a... ..a... ..a... ..a... 2880
D6948-A: ...t..t..a... ..c... ..c... ..c... ..t..a... ..a... ..a... ..a... ..a... 2880
TY89-A: ...a..a..c... ..c..c... ..t... ..c..g... ..g... ..g... ..g... ..g... 584

CONSENSUS: agaagaacar rtcytaaggg cagcyacgtc gatctacggg gctccaggac aggcwgarc 2940
CEF94-A:a..a..c... ..t... ..t... ..a... ..a... ..a... ..a... ..a... ..a... 2940
D6948-A:a..a..c... ..t... ..t... ..a... ..a... ..a... ..a... ..a... ..a... 2940
TY89-A:g..g..t... ..c... ..c... ..a... ..a... ..a... ..a... ..a... ..a... 644

~~FIG. 2A~~ (Contd.) FIG. 2G

CONSENSUS: accccaagcy ttcatagacg aagtygccar rgtctatgaa atcaaccatg grcgtggycc 3000
CEF94-A:tt....a aa.....C... 3000
D6948-A:CC....a ag.....C... 3000
TY89-A:CC....g gg.....t.. 704

CONSENSUS: maaccargar cagatgaarg aytgctctcyt gactgcgatg gagatgaagc atcgcaatcc 3060
CEF94-A: a.....a..aa. t.....t. 3060
D6948-A: C.....a..aa. t.....C. 3060
TY89-A: a.....g..gg. .C.....C. 764

CONSENSUS: caggcgggct cyaccaaaagc cmaagccaaa acccaatgct ccawcacaga gacccctgg 3120
CEF94-A:t.....C.....C.....a..... 3120
D6948-A:C.....C.....C.....a..... 3120
TY89-A:C.....C.....a.....t..... 824

CONSENSUS: wcggctgggc cgctggatca ggrcbgtctc tgaygaggac ytkgagtga gynecctggga 3180
CEF94-A: t.....a.C.....t.....C.t.....ta..... 3180
D6948-A: t.....g.t.....t.....C.t.....ct..... 3180
TY89-A: a.....a.g.....C.....t.g.....ct..... 884

CONSENSUS: gtctcccgc accacccgcg caggygtgga caccaattmr kmhhtaswrm atycsaaatt 3240
CEF94-A:t.....cg gact..caac ..C.C..... 3240
D6948-A:C.....cg gccaa..caac ..C.C..... 3240
TY89-A:t.....aa tcac..gtga ..t.g..... 944

CONSENSUS: ggatccggtc gcgggtccccc 3260
CEF94-A: 3260
D6948-A: 3260
TY89-A: 964

CONSENSUS: ggatacgaatg ggtctgaccc tctgggagtc acgaattaac gtggctacta ggggygatrm 60
 CEF94-B:
 D6948-B:

 CONSENSUS: ccrcgcgtrg ctgccacggt agtggtctcct cttcttgatg attctrrccac catgagtgac 120
 CEF94-B: ..g.....g.....
 D6948-B: ..a.....a.....

 CONSENSUS: rttttcaaya gtccacaggc gcgaagcamg atmtcagcag cgttcggcat aaagccctacw 180
 CEF94-B: a.....C.....C.....
 D6948-B: g.....t.....a.....

 CONSENSUS: gctggacarg aytggaaga actcytgatc cctaargtyt gggtgccacc tgaggatccs 240
 CEF94-B:a..C.....t.....
 D6948-B:g..t.....C.....

 CONSENSUS: ytkgccagcc ctagtcgwct ggcmaagttc ctcagrgara acggctacaa rrttytgacg 300
 CEF94-B: C.t.....a.....a.....
 D6948-B: t.g.....t.....C.....

 CONSENSUS: ccacgggtctc trccygagaa tgaggagtat gagaccgayc aaatactccc wgacytagcw 360
 CEF94-B:g..C.....
 D6948-B:a..t.....t.....

 CONSENSUS: tggatgmgrc agatagargg rgctgtttta aaaccmacyc tatctctccc yatggagay 420
 CEF94-B:C.a.....a..g.....
 D6948-B:a.g.....g..a.....

 CONSENSUS: caggagtact tcccwaarta ctaccaaca caycgcccka gcaaggaraa gcccaatgcg 480
 CEF94-B:a..g.....a..g.....
 D6948-B:t..a.....t..a.....

FIG. 28 (Continued) FIG. 3B

CONSENSUS: taccgcgcmg ayatcgcayt actcaagcag atgatytyacy tgtttctcca ggttccmgag 540
CEF94-B:a. .C.....C.t...Ca... 540
D6948-B:C. .t.....t.C...tC... 540

CONSENSUS: gccammgakr rcctwaarga tgargtmacc ctmytraccc aaaacatwag rgayaargcc 600
CEF94-B:ac..gg g...a..g.. ..a..a... ..Ct.g... ..a...a.. g..C..g... 600
D6948-B:Ca.ta a...t..a.. ..g..C... ..ac.a....t.. a..t..a... 600

CONSENSUS: tayggragtg ggacctacat gggacargcm acymgacttg tkgcyatgaa rgaggtygcc 660
CEF94-B: ..t..a....a..a ..tc..... .g..C..... g.....C... 660
D6948-B: ..C..g....g..C ..ca..... .t..t.... a.....t... 660

CONSENSUS: actggragaa acccaaaacaa rgatcctcta aagcttggtg acacytttga gagcatmgcs 720
CEF94-B:a....g.....t.....C..g 720
D6948-B:g....a.....C.....a..c 720

CONSENSUS: cagctacttg acatcacwyt accggtaggc ccaccgggtg aggatgacaa gccctgggtr 780
CEF94-B:ac.tt.g 780
D6948-B:a.....a 780

CONSENSUS: ccaactcaciaa grgtgccgtc amggatgttg gtwtgacgg gmgacgtaga tggsgamttt 840
CEF94-B:a..... .C..... ..a..... .a..... .C..C... 840
D6948-B:g..... .a..... .t..... .C..... .g..a... 840

CONSENSUS: gaggttgarg aytaccttcc caaaatcaac ctcaagtcac caagtggact rccmtatgtw 900
CEF94-B:a. .t.....a.....a 900
D6948-B:g. .C.....g..C.....t 900

CONSENSUS: ggtcgccacca aaggagarac wattggsgag atgatagcya tmtcraacca gtttctymga 960
CEF94-B:g.. a.....C...t. .C..a.....ca.. 960
D6948-B:a.. t.....g...C. .a..g.....tc.. 960

~~FIG. 28~~ (Continued) FIG. 3C

CONSENSUS: gagctatcar crctgytgaa gcarggtgca gggacaaaarg ggtcraacaa gaagaagctr 1020
CEF94-B:a a...t... ..a.....g.a.....a 1020
D6948-B:g g...c... ..g.....a.g.....g 1020

CONSENSUS: ctcagcatgy taagtgacta ytggtacta tcatgygggc ttttgtttcc maaggctgar 1080
CEF94-B:ttC... ..a.....a 1080
D6948-B:cct... ..c.....g 1080

CONSENSUS: aggtacgaca aaagyacatg gtcaccaaag acccgkaaca tatggtcagc tccatcmcca 1140
CEF94-B:ttg... ..c.....c... 1140
D6948-B:cct... ..a.....a... 1140

CONSENSUS: acacacctca tgatctcwat gatmacctgg cccgtgatgt ccaayagccc aaayaacgtg 1200
CEF94-B:ttc..... ..c..... ..t..... 1200
D6948-B:aat... ..c..... ..c..... 1200

CONSENSUS: ttgaacattg argggtgtcc rtcactctac aarttcaacc cgtyagagg wgggytraac 1260
CEF94-B:aaa..... ..c..... ..a...t.g... 1260
D6948-B:ggg..... ..t..... ..t...c.a... 1260

CONSENSUS: aggatcgtsg agtggatawt ggcycggaw gaaccaagg cyytwgtata tgckgacaac 1320
CEF94-B:ctc.....at..... ..g..... 1320
D6948-B:gat.....tc.a..... ..t..... 1320

CONSENSUS: atatacatgg tycactcmaa cacgtgggtac tcaattgacc tagagaaggg tgaggcaaac 1380
CEF94-B:cat..... ..c..... ..c..... 1380
D6948-B:tct..... ..c..... ..c..... 1380

CONSENSUS: tgcackcgyc aacacatgca rgccgcmatg tactacatmc tyaccagagg rtggtcmgay 1440
CEF94-B:t..c.a.....a... ..c.....a. ..c.....a..c 1440
D6948-B:g..t.g.....c... ..c.....c. ..t.....c..t 1440

CONSENSUS: aacggygacc cmatgttcaa tcaracatgg gccacctttg csatgaacat tgccccwgct 1500
CEF94-B:c.....a..... ..a..... ..c..... ..c.....t... 1500
D6948-B:t.....c..... ..g..... ..g..... ..a.....a... 1500

~~FIG. 2B~~ (Identical) FIG. 3D

CONSENSUS:	ctagtkgtgg	actcatortg	ycatgatwatg	aacckkara	tyaagacmta	tggatcaaggc	1560
CEF94-B:	.....g....	.....g....	c.....a....	.....g.a....	.t.....c..	.....	1560
D6948-B:	.....t....	.....a....	t.....t....	.....t.g..	.c.....a..	.....	1560
CONSENSUS:	agygggaatg	cagccacstt	catcaacaac	cayctyytka	gcacsctwgt	gctwgaccag	1620
CEF94-B:	.c.....	.....g..	.....	.c..ct.g.	...g.a..	..t.....	1620
D6948-B:	.t.....	.....c..	.....	.t..tc.t.	...c..t..	..a.....	1620
CONSENSUS:	tggaacytga	tgarrcarcc	yagwccagac	agcgargagt	tcaartcaat	tgargacaag	1680
CEF94-B:	.....c....	...ga.g..	c.a.....	.....g....	...a.....	...g.....	1680
D6948-B:	.....t....	...ag.a..	t..t.....	.....a....	...g.....	..a.....	1680
CONSENSUS:	ctrnggyatca	acttyaagat	tgagaggctc	attgatgaya	tyaggggcaa	gctsagacag	1740
CEF94-B:	.a..t....	.....t....	.....	.....t..	.c.....	...g.....	1740
D6948-B:	.g..c....	.....c....	.....	.....c..	.t.....	...c.....	1740
CONSENSUS:	cttgctccycc	ttgcacaacc	agggtacctg	agtggrgggg	tygaaccaga	rcaayccagc	1800
CEF94-B:	.....t..	.....	.....	.....g....	.t.....	a..t....	1800
D6948-B:	.....c..	.....	.....	.....a....	.c.....	g...c....	1800
CONSENSUS:	ccaaactgtwg	agctkgacct	actmggrtgg	tcwgwcacwt	acagcaaaga	tctygggatac	1860
CEF94-B:	.....t..	.....t....	...a.g....	...a..t..a.	.....	...c.....	1860
D6948-B:	.....a..	...g....	...c.a....	.t..a..t..	.....	...t.....	1860
CONSENSUS:	tatgtgccgg	tgcttgacaa	ggaacgcyta	ttttgtyctg	ctgcgtatcc	caarggrgta	1920
CEF94-B:	.....	.....	.....c..	.....t....	.....	...g.a....	1920
D6948-B:	.....	.....	.....t..	.....c....	.....	...a..g....	1920
CONSENSUS:	gagaayaara	gyctcaartc	caargtyggg	atcgagcarg	catacaargt	wgtcagggtay	1980
CEF94-B:	.....c..g.	.t....g..	...a.c....	.....g..	.....g..	a.....t	1980
D6948-B:	.....t..a.	.c.....a..	...g.t....	.....a..	.....a..	t.....c	1980
CONSENSUS:	gaggcggtga	ggttggtagg	tggttggaac	taccactcc	tgaacaaagc	ytgcaagaay	2040
CEF94-B:	.....	.....	.....	.....	.....	c.....t	2040
D6948-B:	.....	.....	.....	.....	.....	t.....c	2040

FIG. 2B (Continued) FIG. 3E

CONSENSUS: aaygcargyg cmgctcgggg gcactgtggag gccaaaggggt tcccrctcga ygagttcctm 2100
CEF94-B: ..C...g.C. .C..... .g..... .a..... C.....a 2100
D6948-B: ..t...a.t. .a..... .g..... .g..... t.....c 2100

CONSENSUS: gccgagtggg cwgagytgtc mgagtgcggw gargcyttcg aaggcttcaa yatcaagctg 2160
CEF94-B:t...C.... a.....t .g.C....t..... 2160
D6948-B:a...t.... C.....a .a.t....C..... 2160

CONSENSUS: acmgtaacay ckgagagcct mgccgaactk aacarrrccag tacccccacaa rccyccaaat 2220
CEF94-B: ..C.....t .t..... a.....gag....g..C..... 2220
D6948-B: ..a.....C .g..... C.....tga....a..t..... 2220

CONSENSUS: gtcaacagac cagtcaacac yggkgrgrctm aaggcagtca gcaaygcct caagaccggy 2280
CEF94-B:t..... .t..g..a..CC.....t..... 2280
D6948-B:t..... C..t..g..at.....C..... 2280

CONSENSUS: cggtayagra aygaagccgg actragtgyy ctctctctyc tagccacmgc mmgmagccgw 2340
CEF94-B:C..g. .C..... .g.....tt.....a.. aa.a.....t 2340
D6948-B:t..a. .t..... .a.....CC..... CC.C.....a 2340

CONSENSUS: ctrcargayg cagtyaaggc caaggcagar gccgagaaac tccacaagtc yaagccmgay 2400
CEF94-B: ..g..a..t.t..... .a..... .a..... C.....a..c 2400
D6948-B: ..a..g..C.C..... .g..... .t.....C..t 2400

CONSENSUS: gaccccgatg cagactgggtt ygaamgrtca gaaacyctgt cagacctkct ggagaaagcc 2460
CEF94-B:t..... .C...a..a...t....t.... 2460
D6948-B:t..... .t...C.g...C....g.... 2460

CONSENSUS: gacatygccg gcaaggtcgc ycactcagca ctctgtgaaa caagcgacgc ycttgaagcr 2520
CEF94-B:C....t..... C..... .a..... C.....a 2520
D6948-B:t..... .t..... .t..... .t.....g 2520

CONSENSUS: gtycagtcra cytcmtgtga cacyccmaag taccagarg tyaagaaccc acagaccgcc 2580
CEF94-B: ..t.....g. .t..C.... .t..C....a.. .C..... 2580
D6948-B: ..C.....a. .C..a.... .C..a....g. .t..... 2580

~~FIG. 2B~~ (Cont'd) FIG. 3F

CONSENSUS: tccaaccccg ttgttgggt ccactgccc gccaagarg ccaccggtgt ccaggcmgct 2640
CEF94-B:a.C... 2640
D6948-B:g.a... 2640

CONSENSUS: cttctcggag caggracgag cagaccaatg gggatggagg cyccaacacg gtccaagaac 2700
CEF94-B:a.C. 2700
D6948-B:g.t. 2700

CONSENSUS: gccgtgaaa tggccaaamg gcggcaacgc caaargaga gccgccaaya gccatgatgg 2760
CEF94-B:C.g.C. 2760
D6948-B:a.a.t. 2760

CONSENSUS: gaaccactca agaagaggac actaayccca gaccccgat ccccggcctt cgcctgcggg 2820
CEF94-B:t... 2820
D6948-B:C. 2820

CONSENSUS: ggccccc 2827
CEF94-B: 2827
D6948-B: 2827

FIG. 3A 4A

CONSENSUS: MTNLQDQTQQ IVPFIRSLIM PTTGPASIPD DTLEKHTLRS ETSTYNLTVG DTGSLIVFF	60
CEF94-PP:	60
D6948-PP:	60
TY89-PP: -----	
CONSENSUS: PGFPGSIVGA HYTLQSNNGY KFDQMLLTAQ NLPASYNCR LVSRSLTVRS STLPGGVYAL	120
CEF94-PP:	120
D6948-PP:	120
TY89-PP: -----	
CONSENSUS: NGTINAVTFQ GSELSELTDS YNGLMSATAN INDKIGNVLV GEGTVLSLP TSYDLGYVRL	180
CEF94-PP:	180
D6948-PP:	180
TY89-PP: -----	
CONSENSUS: GDPIPAIGLD PKMVATCDSS DRPRVYTITA ADDYQFSSQY Q.GGVTTILF SANIDAITSL	240
CEF94-PP:	240
D6948-PP:	240
TY89-PP: -----	
CONSENSUS: S.GGELVFQT SV.GL.LGAT IYLIGFDGTA VITRAVAA.N GLT.GTDNL. PFN.VIPT.E	300
CEF94-PP: .V..... .H..V.... .N..... .T..... .L.... .N.	300
D6948-PP: .I..... .Q..I.... .D..... .A..... .M.... .I.... .S.	300
TY89-PP: -----	
CONSENSUS: ITQPITSIKL EIVTSKSGGQ AGDOMSWA. GSLAVTIHGG NYPGALRPVT LVAYERVATG	360
CEF94-PP:	360
D6948-PP:	360
TY89-PP: -----	
CONSENSUS: SVTVAGVSN FELIPNELA KNLVTEYGRF DPGAMNYTKL ILSEDRLGI KTVWPTREYT	420
CEF94-PP:	420
D6948-PP:	420
TY89-PP: -----	

FIG. 4B (Contd.)

CONSENSUS: DFEYFMEVA DLNSPLKIAG AFGKDIIRA .RRIAPVVS TLFPPAAPLA HAIGGVVDYL	480
CEF94-PP:	480
D6948-PP:	480
TY89-PP:	480

CONSENSUS: LGDEAQAASG TARAASGKAR AASGRIRQLT LAADKGYEVV ANLFQVPQNP VVDGILASPG	540
CEF94-PP:	540
D6948-PP:	540
TY89-PP:	540

CONSENSUS: .LRGAHNDC VLREGATLFP VVITVEDAM TPKALNSKMF AVIEGVREDL OPPSQRGSFI	600
CEF94-PP: V.....	600
D6948-PP: I.....	600
TY89-PP:	600

CONSENSUS: RTLSGHRVYG YAPDGVLPLE TGRDITVUPI DDVWDDSIML SKDPIPIVG NSGNLAIAYM	660
CEF94-PP:	660
D6948-PP:	660
TY89-PP:	660

CONSENSUS: DVFRPKVPIH VAMTGALNA. GEIE.VSERS TKLATAHRLG LKLAGPGAFF VNTG.NWATF	720
CEF94-PP:	720
D6948-PP:	720
TY89-PP:	720

CONSENSUS: IKRFPNPRD WDRLPYLNL YLPNAGRQY HLMAAASEFK ETPELESVR AMEAAANVDP	780
CEF94-PP:	780
D6948-PP:	780
TY89-PP:	58

CONSENSUS: LFQSALSVFM WLENGIVTD MANFALSDPN AHRMRNFLAN APQAGSKSOR AKYGTAGYGV	840
CEF94-PP:	840
D6948-PP:	840
TY89-PP:	118

~~FIG. 3A~~ ~~Continued~~ FIG. 4C

CONSENSUS: EARGPTPEEA QREKDRISK KMETMGIYFA TPEWVALNGH RGPSPGOLKY WONTREIPDP	900
CEF94-PP:	900
D6948-PP:	900
TY89-PP:	178
CONSENSUS: NEDYLDYVHA EKSRLASEEQ ILRAATSIYG APGOAEPPQA FIDEVAKVYE INHGRGPNQE	960
CEF94-PP:	960
D6948-PP:	960
TY89-PP: P..... V..... R.....	238
CONSENSUS: QMKDLLLTAM EMKHRNPRRA PPKPKPKPNA PTQRPGRGLG RWIRTVSDED LE	1012
CEF94-PP:	1012
D6948-PP:	1012
TY89-PP:	290

FIG. 3A

CONSENSUS: MSD.FNSPQA RS.ISAAGI KPTAGQDVEE LLIPKVVVPP EDPLASPSRL AKFLRENGYK	60
CEF94-VP1: . . . I. T.	60
D6948-VP1: . . . V. K.	60
CONSENSUS: .LQPRSLPEN EEYETDQILP DLAWMRQIEG AVLKPTLSLP IGDQEYFPKY YPTHRPSKEK	120
CEF94-VP1: V.	120
D6948-VP1: I.	120
CONSENSUS: PNAYPPDIAL LKQMIYLFLO VPEA. . . LKD EVTLTQNIR DKAYGSGTYM GOATRLVAMK	180
CEF94-VP1:	180
D6948-VP1:	180
CONSENSUS: EVATGRNPKNK DPLKIGYTFF SIAQLLDITL PVGPPGEDDK PWVPLTRVPS RMLVLTGDVD	240
CEF94-VP1:	240
D6948-VP1:	240
CONSENSUS: G.FEVEDYLP KINLKSSSGL PYVGRTKGET IGEMIAISNQ FLELS.LLK QGAGTKGSNK	300
CEF94-VP1: . . . D.	300
D6948-VP1: . . . E.	300
CONSENSUS: KKLLSMLSDY WYLSGCLLFP KAERYDKSTW LTKTRNIWSA PSPTHLMISM ITWPVMSNSP	360
CEF94-VP1:	360
D6948-VP1:	360
CONSENSUS: NNVLNIEGCP SLYKFNPFRG GLNRIVEWI. AP.EPKALVY ADNIIYIVHSN TWYSIDLEKG	420
CEF94-VP1:	420
D6948-VP1:	420
CONSENSUS: EANCTRQHMQ AAMYIILTRG WSDNGDPMEN QTWATEFAMNI APALVVDSSC LIMNLQIKTY	480
CEF94-VP1:	480
D6948-VP1:	480
CONSENSUS: GQSGNAATF INNHLSTLV LDQWNLM.OP .PDSEEFKSI EDKLGINFKI ERSIDDIRGK	540
CEF94-VP1:	540
D6948-VP1:	540

FIG. 98 ~~(Contd.)~~ FIG. 5B

CONSENSUS: LRQLV.LAQP GYLGGVEPE Q.SPTVELDL LGWSATYSKD LGIYVPVLDK ERLFCSAAYP	600
CEF94-VP1: .....L.....S.....	600
D6948-VP1: .....P.....	600
CONSENSUS: KGVENKSLKS KVGIEQAYKV VRYEALRLVG GWNYPLLNKA CKNNA.AARR HLEAKGFPLD	660
CEF94-VP1: .....G.....	660
D6948-VP1: .....S.....	660
CONSENSUS: EFLAEWSELS EFGEAFEGFN IKLTVT.ESL AELN.PVPPK PPNVNRPVNT GGLKAVSNAL	720
CEF94-VP1: .....S.....K.....	720
D6948-VP1: .....P.....R.....	720
CONSENSUS: KTGRRYNEAG LSGLVLLATA RSRLQDAVKA KAEAEKLHKS KPDDPDADWF ERSETLSDLL	780
CEF94-VP1: .....K.....	780
D6948-VP1: .....S.....	780
CONSENSUS: EKADIASKVA HSALVETSDA LEAVQSTSVY TPKYPEVKNP QTASNPPVGL HLPKRATGV	840
CEF94-VP1: .....K.....	840
D6948-VP1: .....R.....	840
CONSENSUS: QAALLGAGTS RPMGMEAPTR SKNAVKNMAKR RQRQKESRQ.	881
CEF94-VP1: .....Q P	881
D6948-VP1: -	879

FIG. 3c 6

CONSENSUS:	MVSRDQTNR	SDD.PARSNP	TDCSVHTEPS	DANNRTGVHS	GRHP.EAHSQ	VRDLDLQFDC	60
D6948-VP5:	.....	..E.....	.....	.....	..R.....	.....	60
CEF94-VP5:	.....	..K.....	.....	.....	..G.....	.....	60
CONSENSUS:	GHRVRANCL	FPW.PWLNCG	CSLHTAEQWE	LQVRSDAPDC	PEPTGQLQLL	QASESESHSE	120
D6948-VP5:	.....	..F.....	.....	.....	.....	.....	120
CEF94-VP5:	.....	..I.....	.....	.....	.....	.....	120
CONSENSUS:	VKHT.WWRLC	TK.HHKRRDL	PRKPE				145
D6948-VP5:	....P.....	..W.....	.....				145
CEF94-VP5:	....S.....	..R.....	.....				145

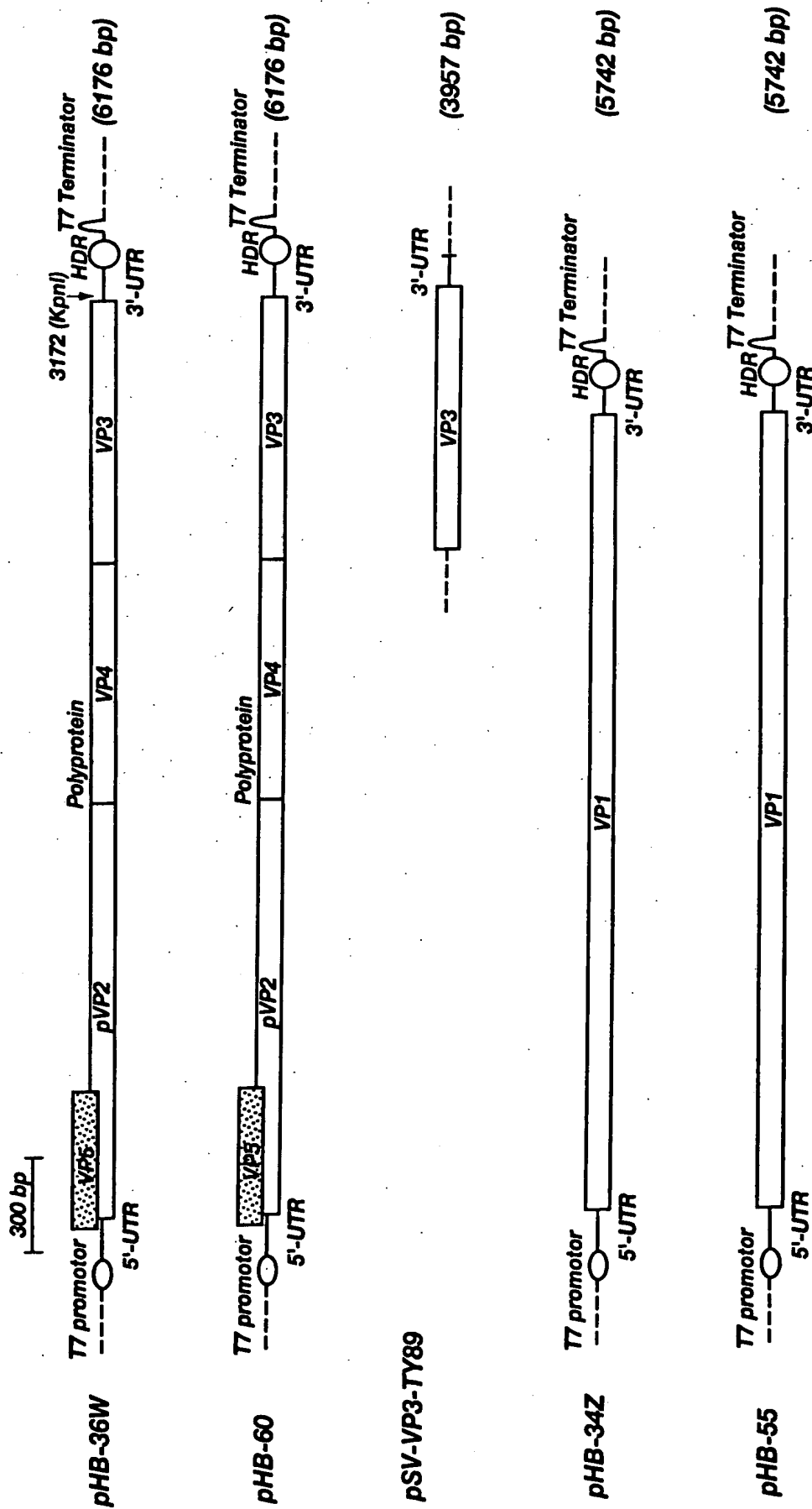


FIG. 7

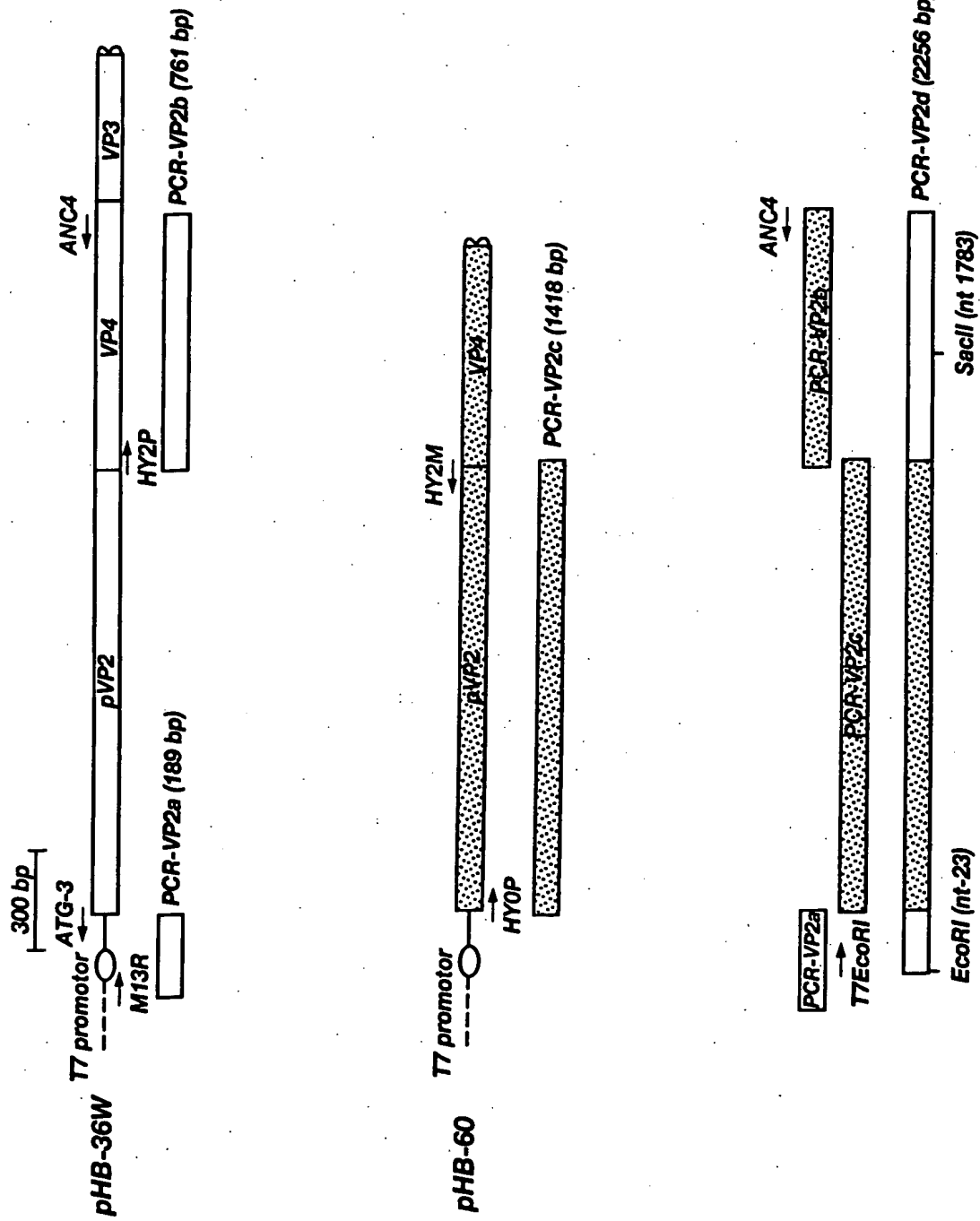


FIG. 5A 8A

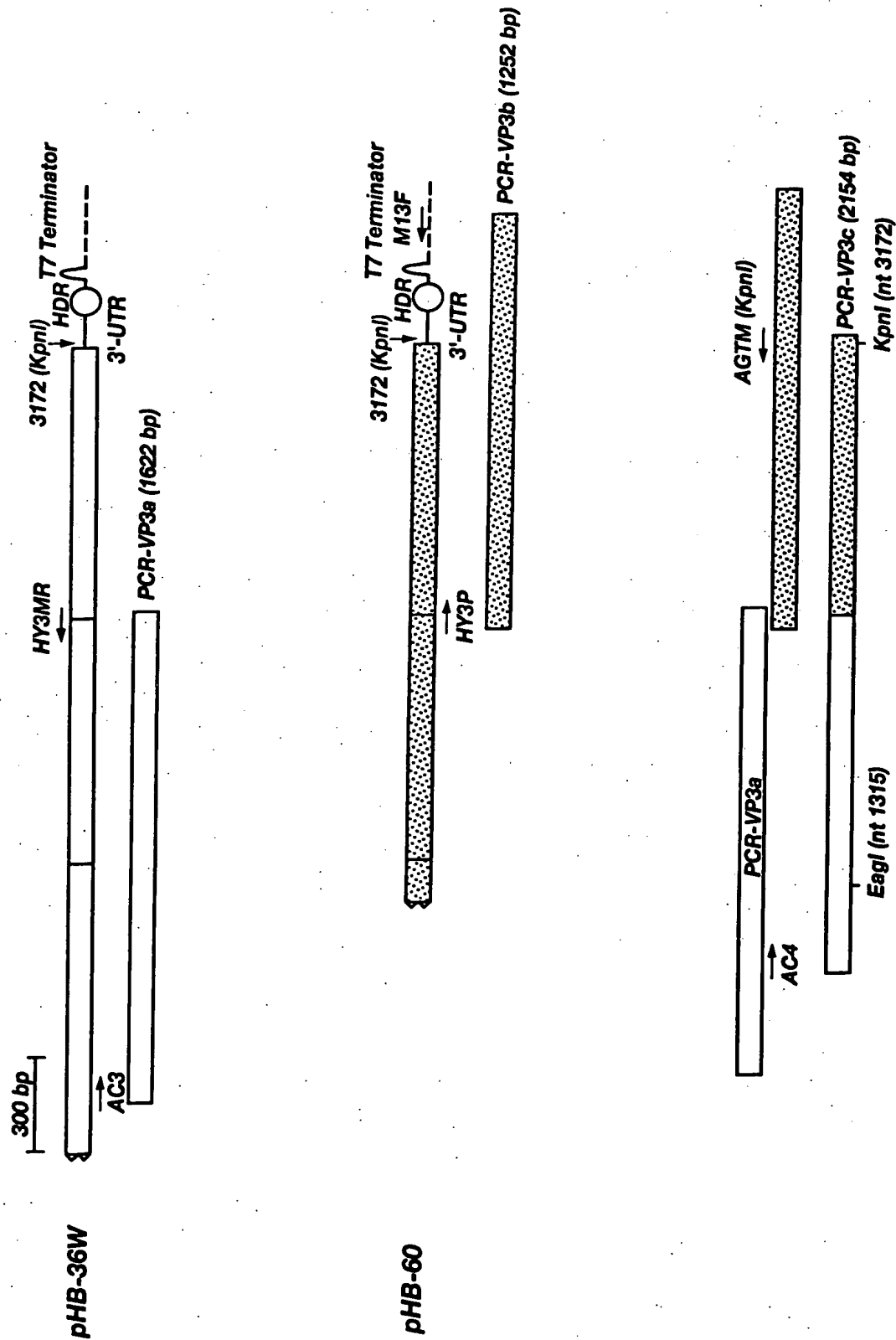


FIG. 5B 80

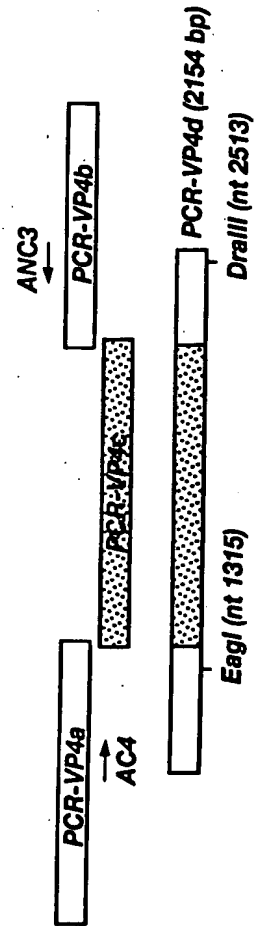
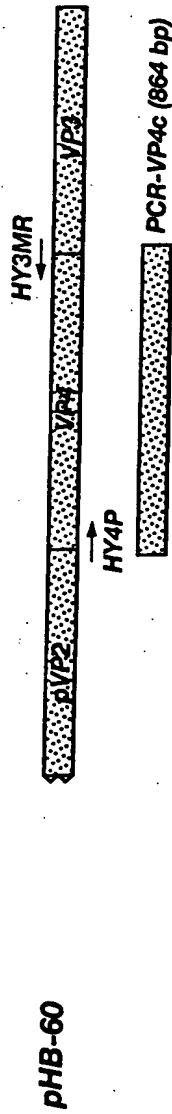
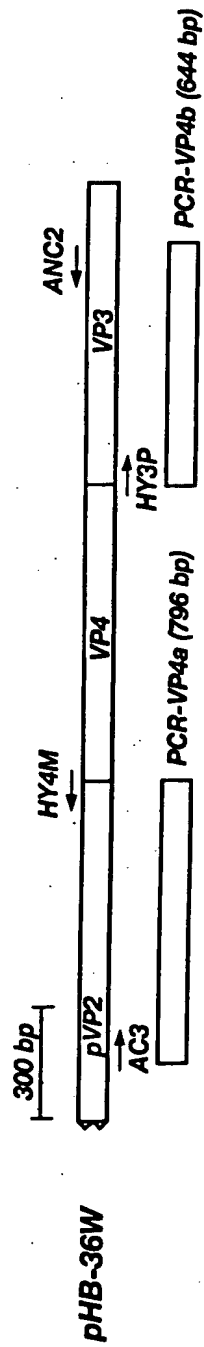


FIG. 36

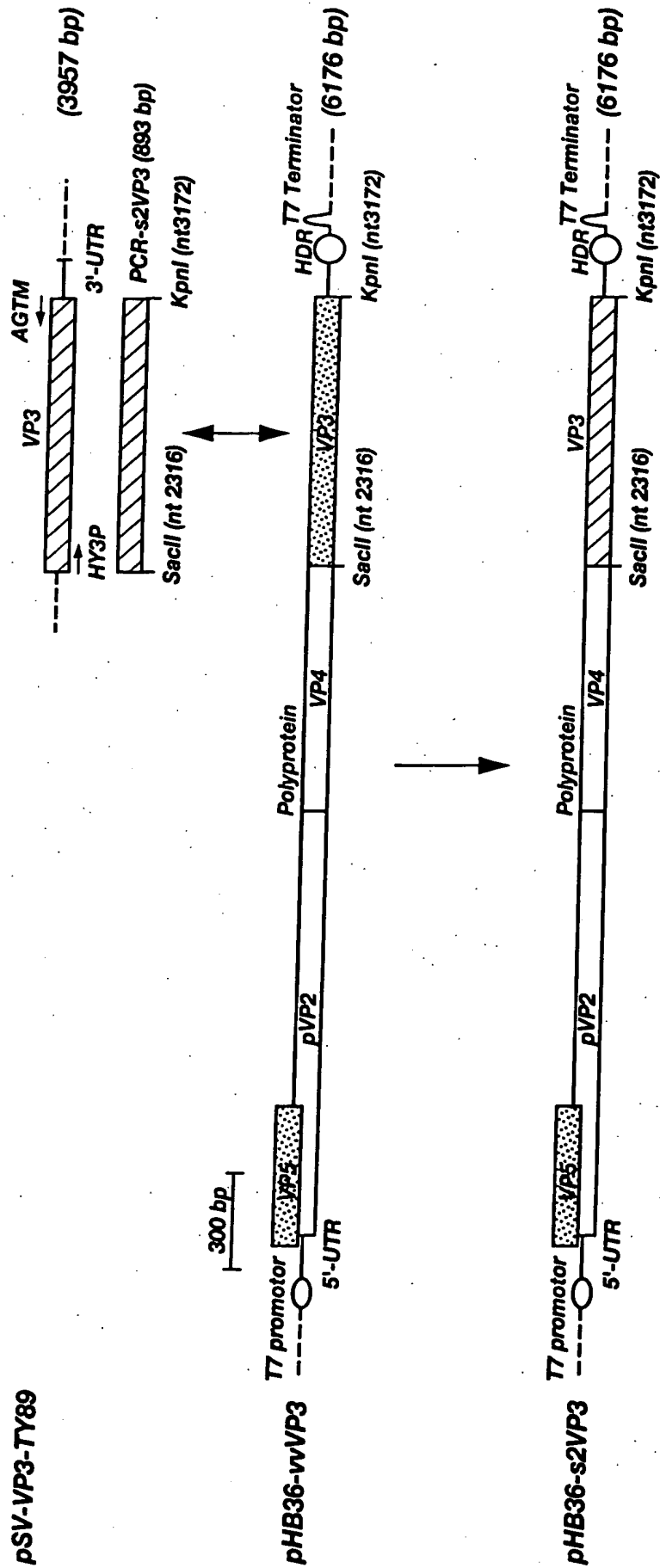


FIG. 5D 8D

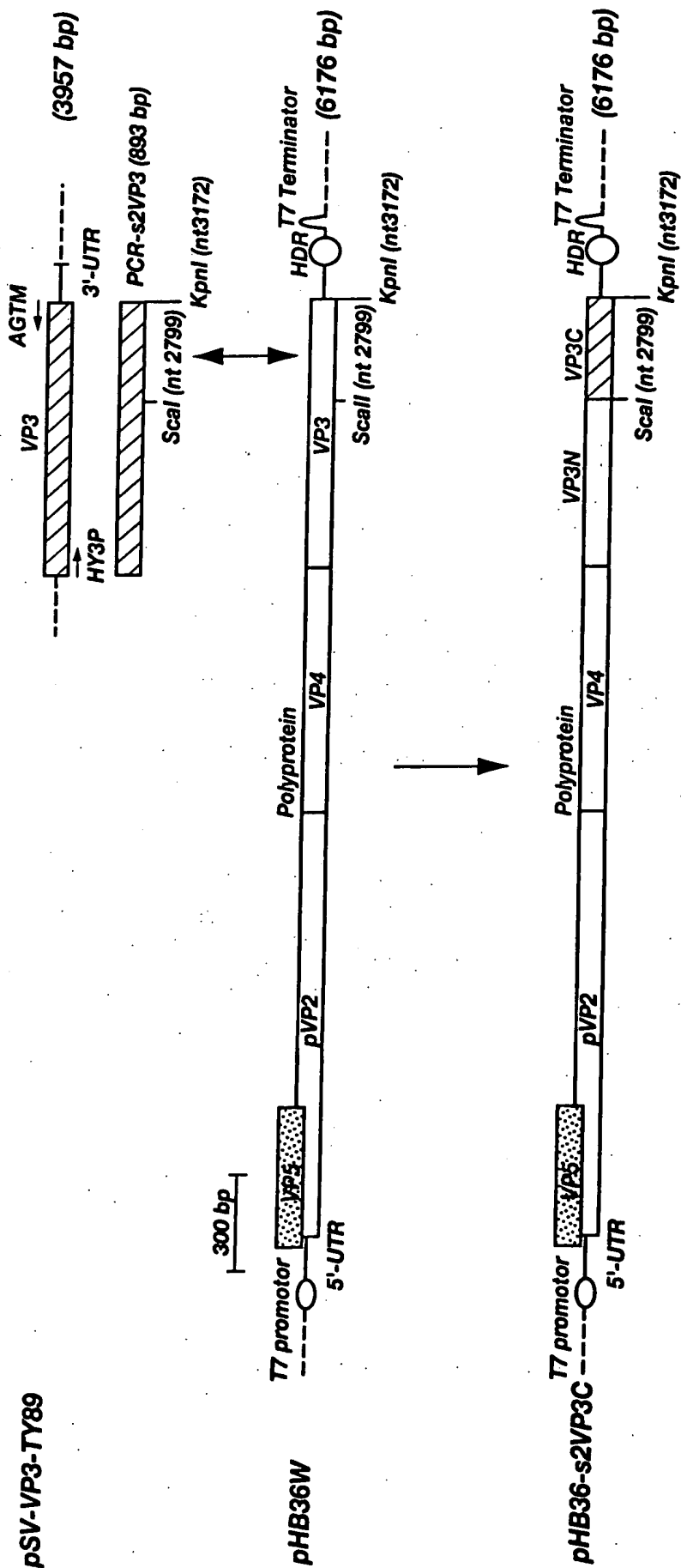


FIG. 5E 8E

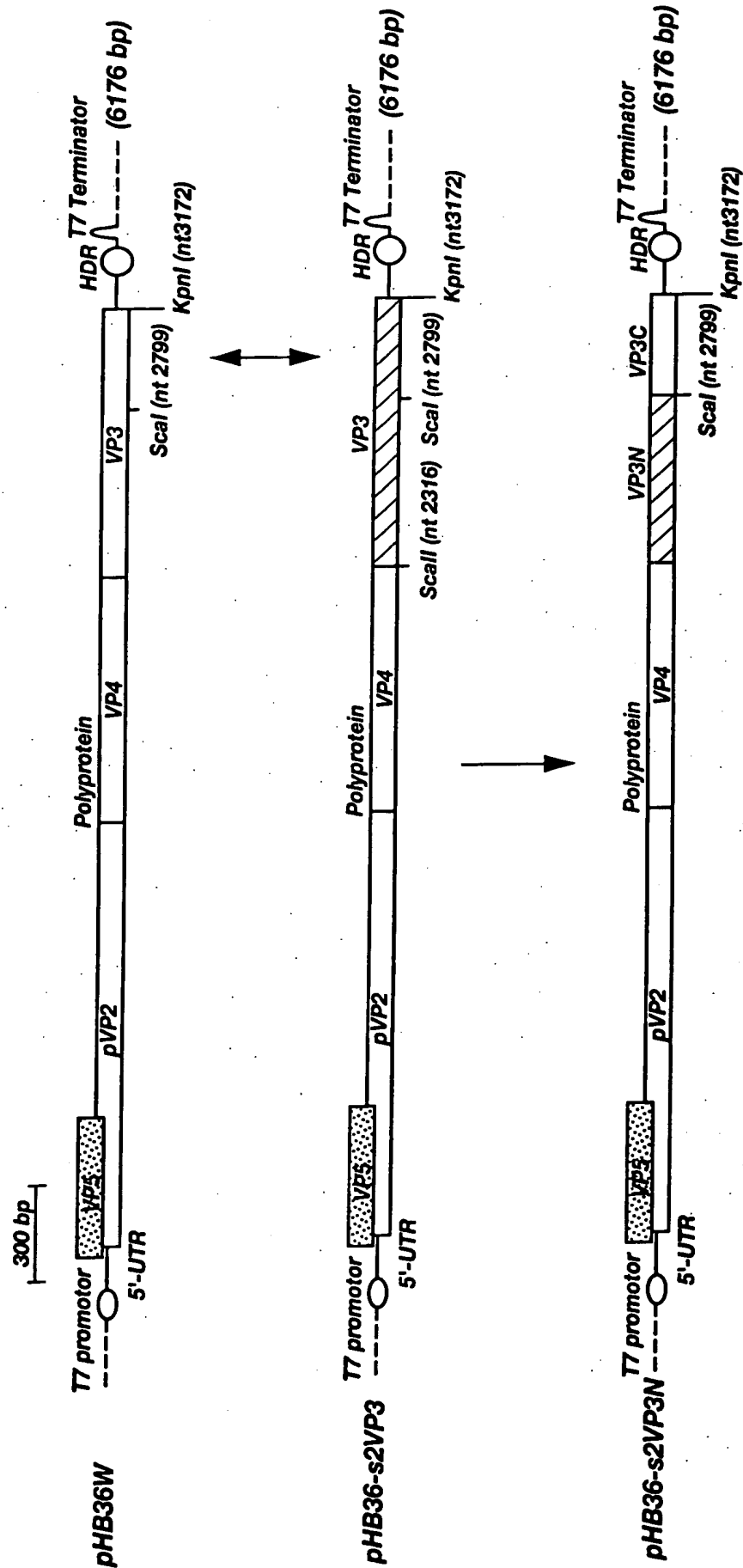


FIG. 3F 8F

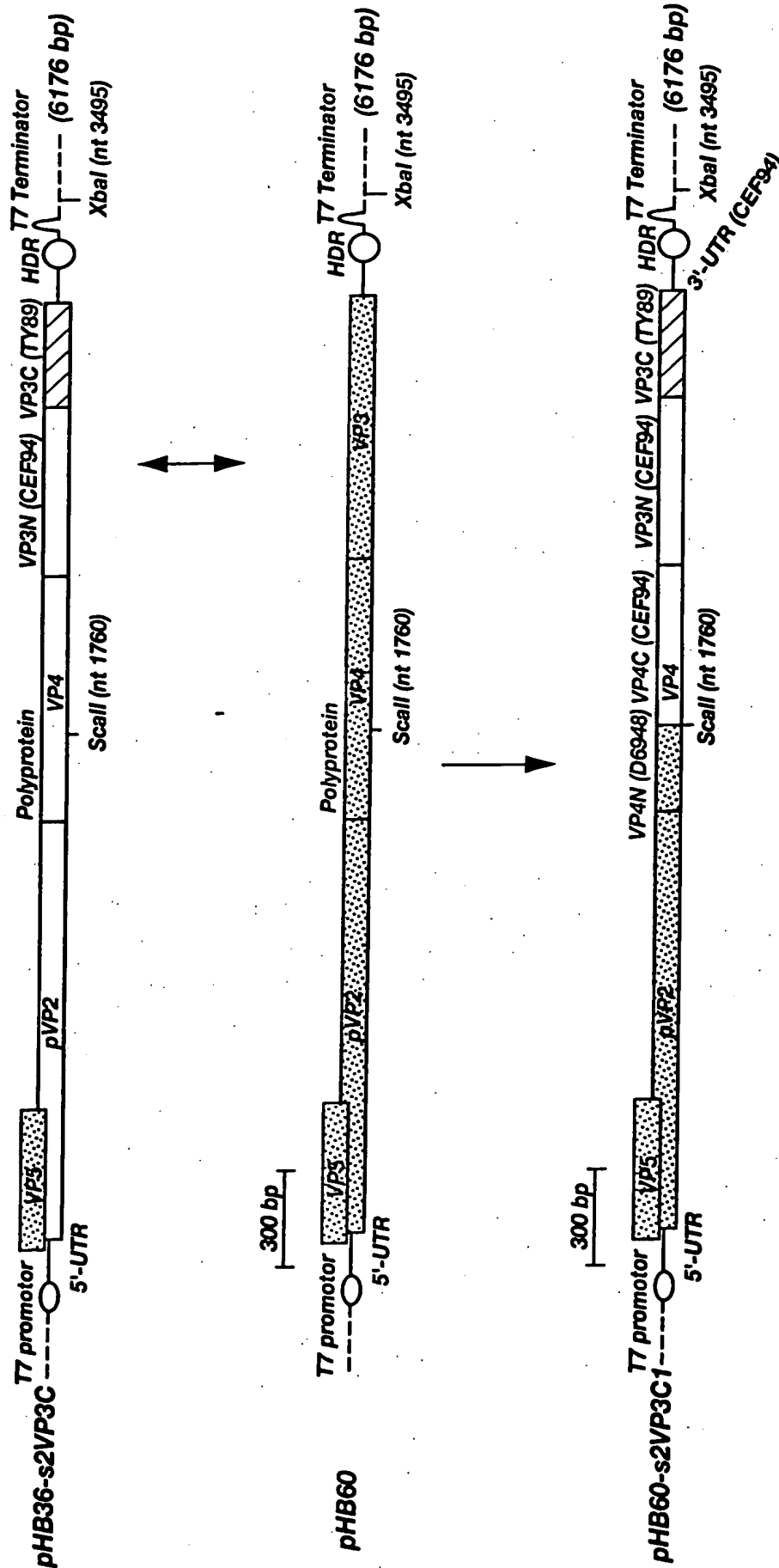


FIG. 5G 86

FIG. 89

VP4 ← → VP3

SacII ↓

CEF94-PP: 724-FPHNPRD WDRLPYLNLP YLPPNAGRQY HLMAAASEFK ETPELESAVR AMEAAANVDP 780
TY89-PP: 724-.....T.....F.....L.....D....D..... 780

CEF94-PP: LFSALSVM WLEENGIVTD MANFALSDPN AHRMRNELAN APQAGSKSOR AKYGTAGYGV 840
TY89-PP: ..R...Q... ..K..... 840

SacI ↓

CEF94-PP: EARGPTPEEA QREKDRISK KMETMGIYFA TPEWVALNGH RGPSPGQLKY WQNTREIPDP 900
TY89-PP: V.....R.... 900

CEF94-PP: NEDYLDYVHA EKSRLASEEQ ILRAATSIYG APQAEPPQA FIDEVAKVYE INHGRGPNQE 960
TY89-PP:P..... 960

CEF94-PP: QMKDLLLTAM EMKHRNPRRA LPKPKPKPNA PTQRPPGRLG RWIRTVSDLE 1012
TY89-PP:P.....S..... 1012

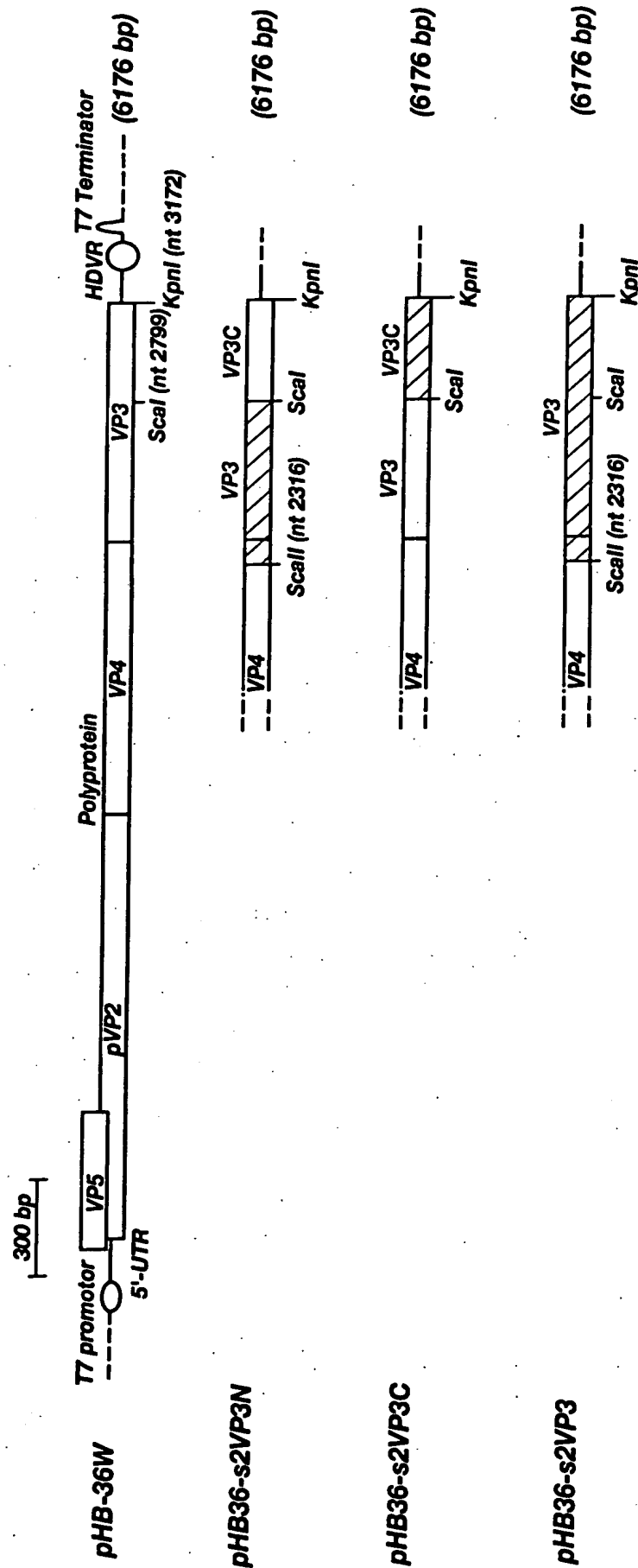


FIG. 10

FIG. 8A 11A

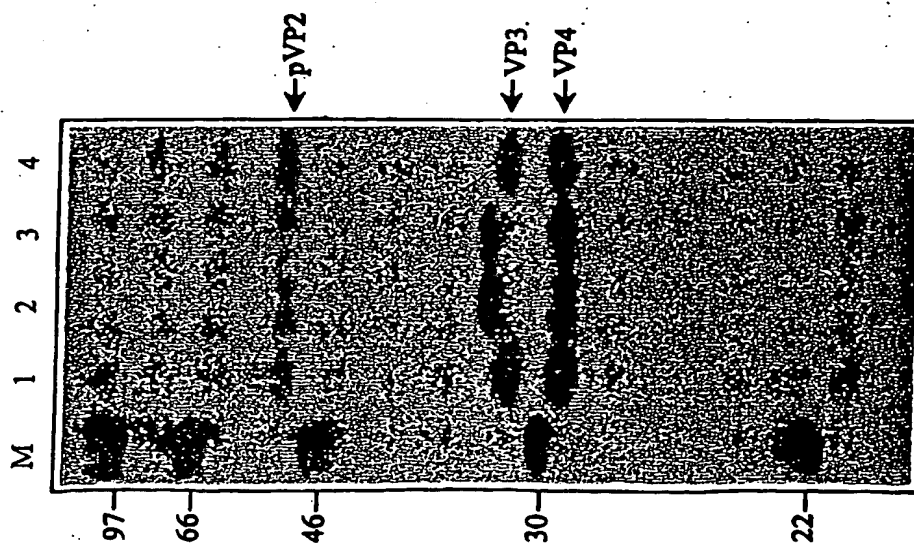


FIG. 8B 11B

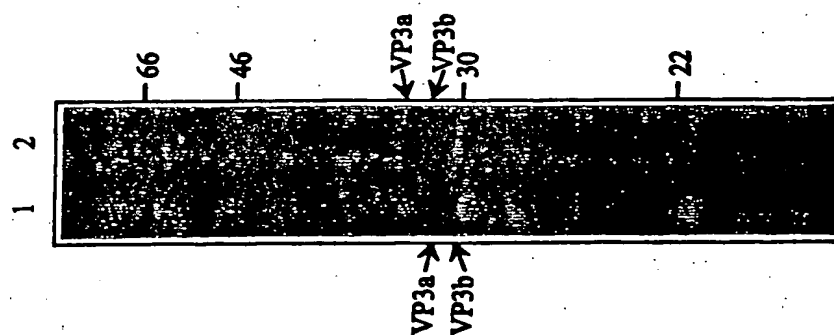
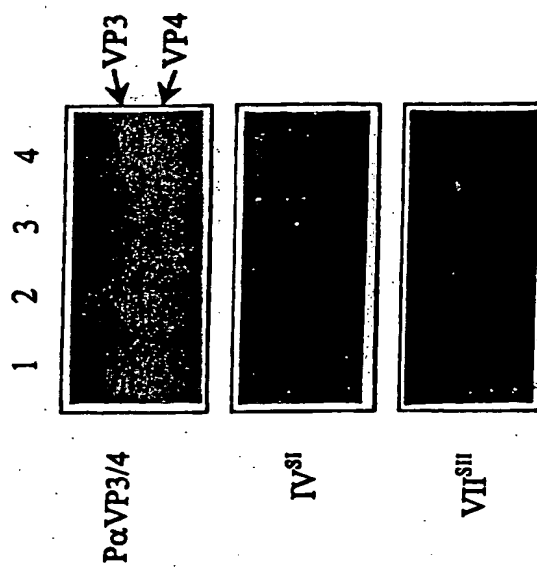


FIG. 8C 11C



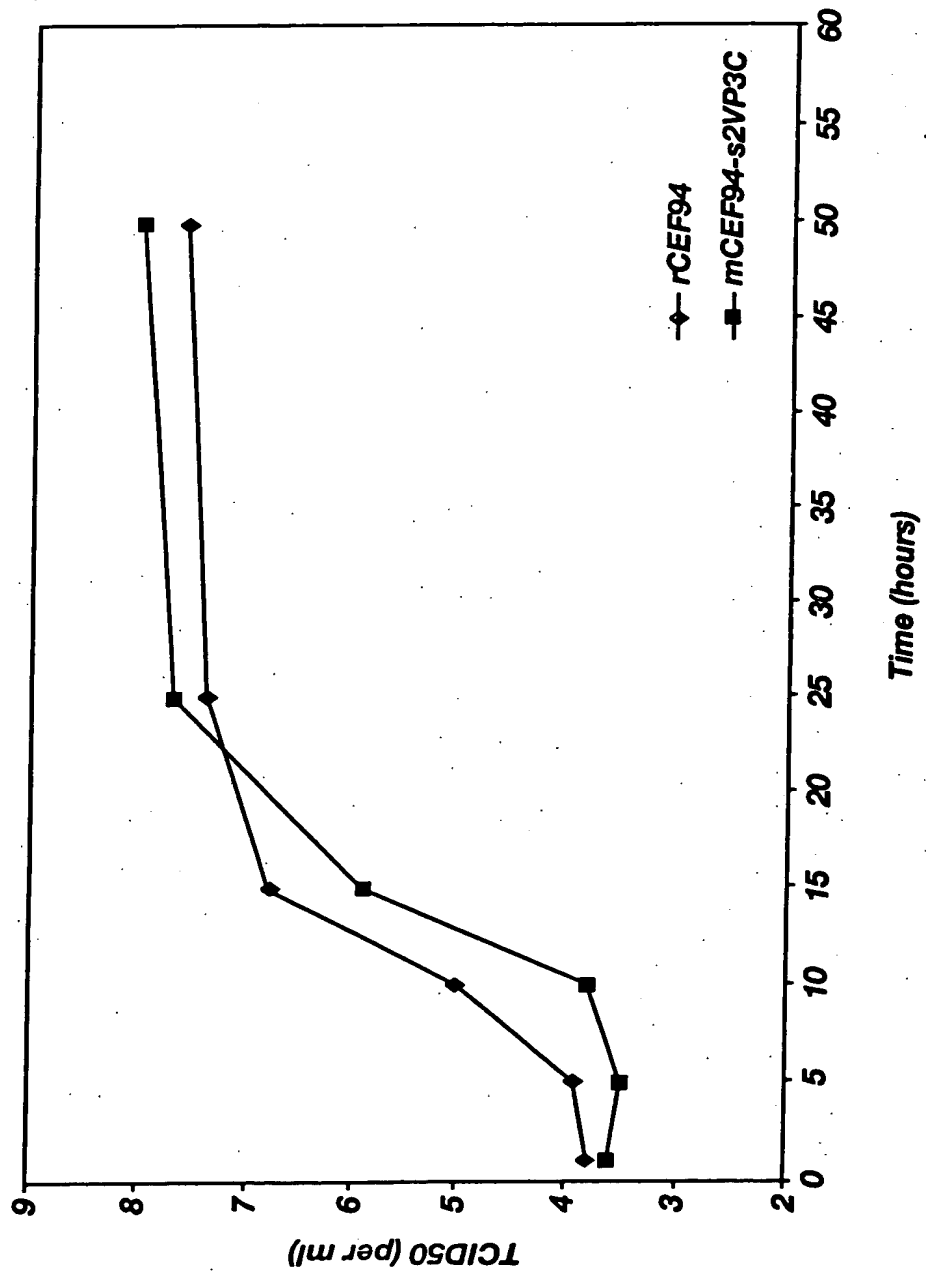


FIG. 12

FIG. ~~10~~ 13

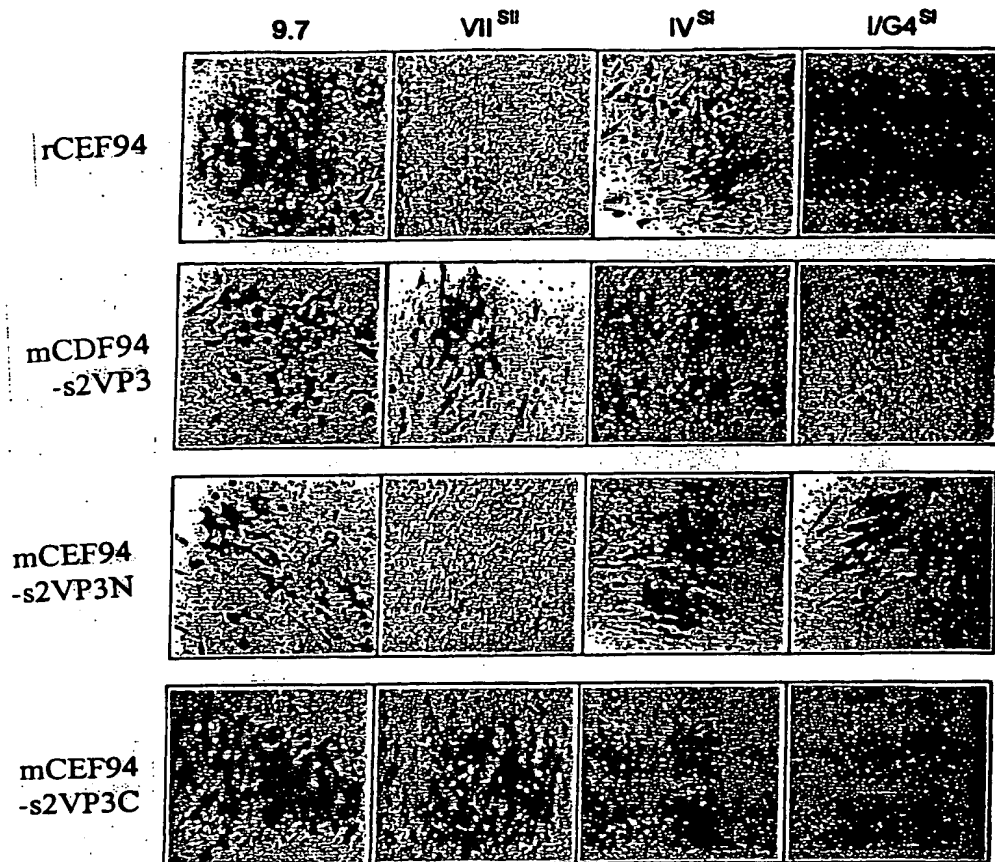




FIG. 12 15

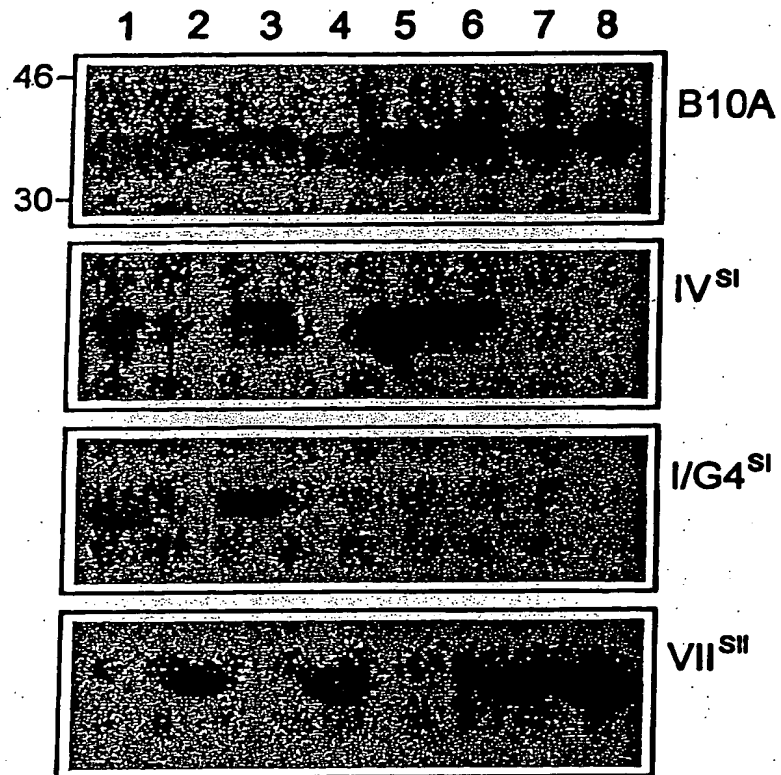
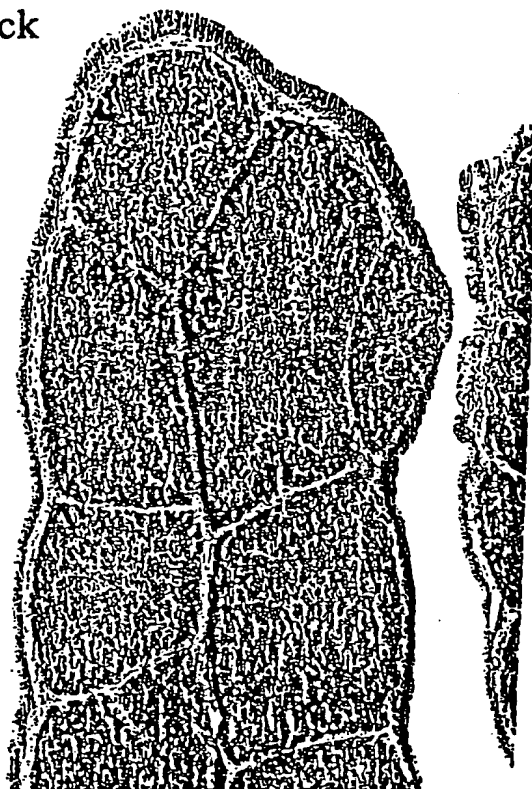


FIG. 13 16

CEF94-PP:	QMKDLLLTAM	EMKHRNPRA	LPKPKPKPNA	PTQRPGRGLG	RWIRTVSDED	LE	1012
D6948:	.....	.....	P.....	.....	....A.....	..	1012
TY89-PP:	.....	.....	P.....	.....S.....	.....	..	1012

FIG. 14 17

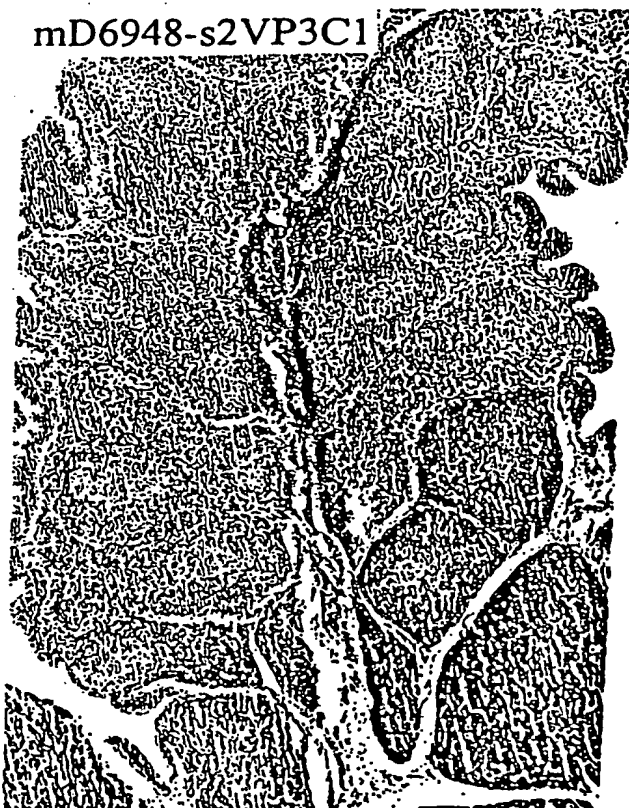
Mock



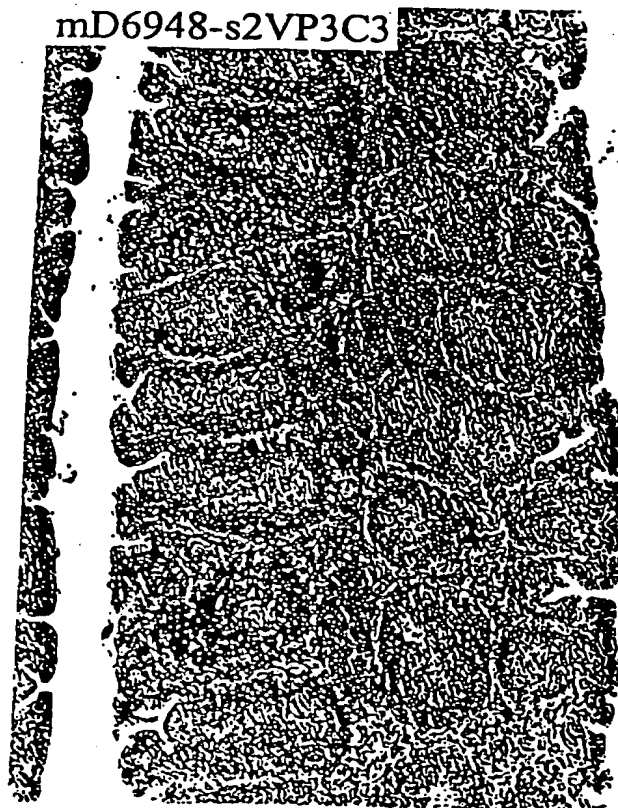
D6948



mD6948-s2VP3C1



mD6948-s2VP3C3



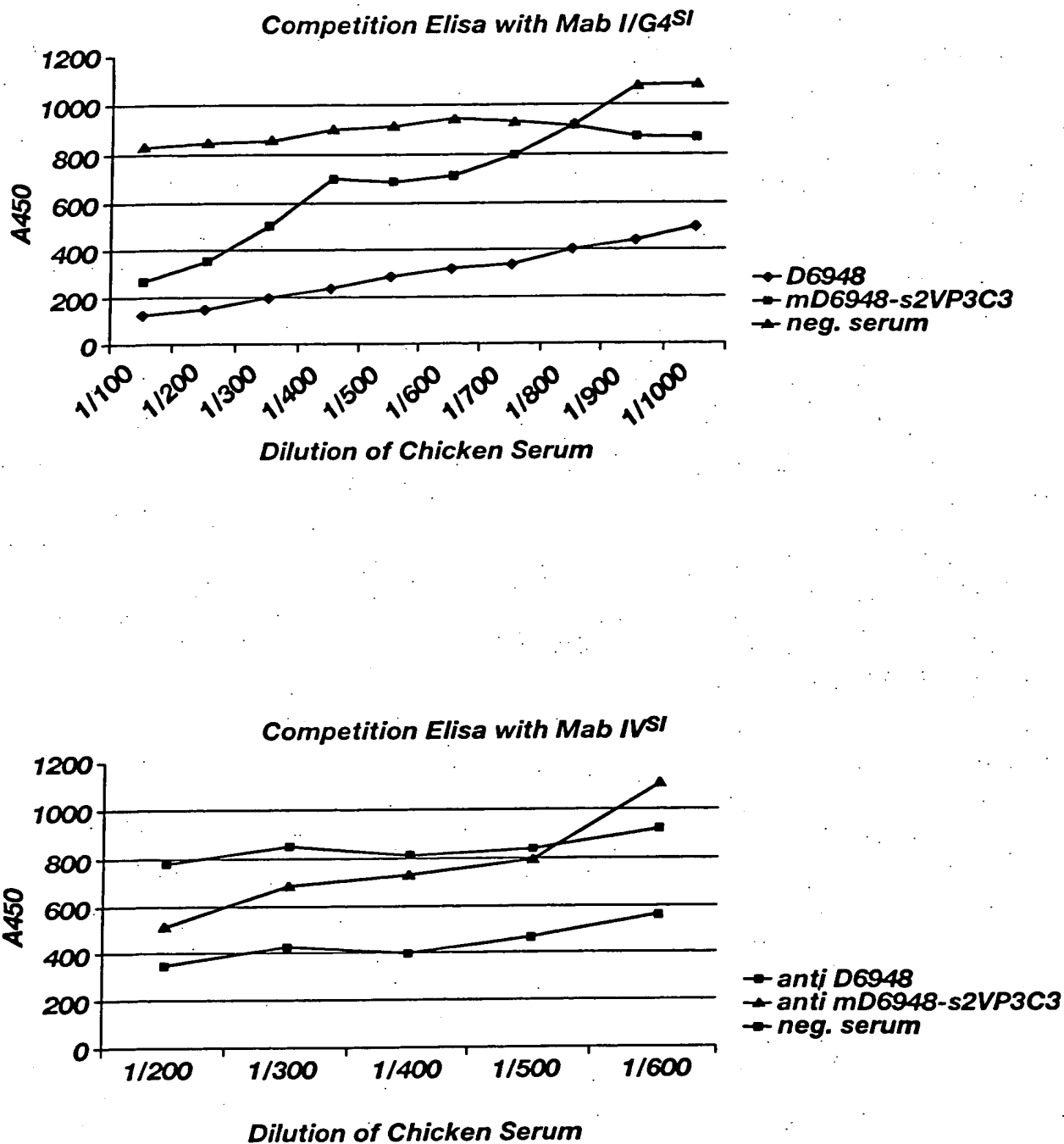


FIG. 15 18

FIG. 16a 19

D6948-VP5: MLSLMVSRDQ TNDRSDDEPA RSNPTDCSVH TEPDANNRT GVHSGRHPRE AHSQVRDLDL 60
CEF94-VP5: ----K... ..G. 56

D6948-VP5: QFDCGGHRVR ANCLFPWFPW LNCGCSLHTA EQWELQVRSD APDCPEPTGQ LQLLQASESE 120
CEF94-VP5:I... .. 116

D6948-VP5: SHSEVKHTPW WRLCTKWHHK RRDLPKPE 149
CEF94-VP5:S.....R... 145

D6948-PP: CEF94-PP:	MTNLQDQTQQ	IVPFIRSLM	PTTGPASIPD	DTLEKHTLRS	ETSTYNLTVG	DTGSLIVFF	60
							60
D6948-PP: CEF94-PP:	PGFPGSIVGA	HYTLQSNGY	KFDQMLLTAQ	NLPASYNCR	LVSRLTVRS	STLPGGVYAL	120
							120
D6948-PP: CEF94-PP:	NGTINAVTFQ	GSLSELTQVS	YNGLMSATAN	INDKIGNVLV	GEGTVLSLP	TSYDLGYVRL	180
							180
D6948-PP: CEF94-PP:	GDIPIAIGLD	PKMWATCDSS	DRPRVYTITA	ADDYQFSSQY	QAGGVITLTF	SANIDAITSL	240
					P.		240
D6948-PP: CEF94-PP:	SIGGELVFQT	SVQGLILGAT	IYLIGFDGTA	VITRAVAADN	GLTAGTDNLM	PFNIVIPTSE	300
	V.	H.V.			N.	T.L.N.	300
D6948-PP: CEF94-PP:	ITQPITSIKL	EIVTSKSGGQ	AGDQMSWSAS	GSLAVTIHGG	NYPGALRPVT	LVAYERVATG	360
				R.			360
D6948-PP: CEF94-PP:	SVTVAGVSN	FELIPNELA	KNLVTEYGRF	DPGAMNYTKL	ILSERDRLGI	KTVWPTREYT	420
							420
D6948-PP: CEF94-PP:	DFREYFMEVA	DLNSPLKIAG	AFGFKDIIRA	LRRIAPVVS	TLFPPAAPLA	HAIGEGVDYL	480
				I.			480
D6948-PP: CEF94-PP:	LGDEAQAASG	TARAASGKAR	AASGRIROLT	LAADKGYEVV	ANLFQVPQNP	VVDGILASPG	540
							540
D6948-PP: CEF94-PP:	ILRGAHNLDC	VLREGATLFP	VVITTVEDAM	TPKALNSKMF	AVIEGVREDL	QPPSQRSFI	600
	V.						600
D6948-PP: CEF94-PP:	RTLGLSHRVYG	YAPDGVLPLE	TGRDYTVVPI	DDVWDDSIML	SKDPIPIVG	NSGNLAIAYM	660
							660
D6948-PP: CEF94-PP:	DVFRPKVPIH	VAMTGALNAY	GEIENVSFERS	TKLATAHRLG	LKLAGPGAFD	VNTGSNWATF	720
			C	K.		P.	720

~~FIG. 10A~~ ~~(Center)~~ FIG. 20B

D6948-PP:	IKRFPHNPRD	WDRLPYLNLP	YLPPNAGRQY	DLAMAASEFK	ETPELES AVR	AMEAAANVDP	780
CEF94-PP:	.....	.....	.....	H.....	.....	.....	780
D6948-PP:	LFQSALSVFM	WLEENGIVTD	MANFALSDPN	AHRMRNELAN	APQAGSKSQR	AKYGTAGYGV	840
CEF94-PP:	.....	.....	.....	.....	.....	.....	840
D6948-PP:	EARGPTPEEA	QREKDTRISK	KMETMGIYFA	TPEWVALNGH	RGPSGOLKY	WQNTREIPDP	900
CEF94-PP:	.....	.....	.....	.....	.....	.....	900
D6948-PP:	NEDYLDYVHA	EKSRLASEEQ	ILRAATSIYG	APGOAEPPOA	FIDEVAKVYE	INHGRGPNQE	960
CEF94-PP:	.....	.....	.....	.....	.....	.....	960
D6948-PP:	QMKDLLLTAM	EMKHRNPRA	PPKPKPKPNA	PTQRPGRGLG	RWIRAVSDED	LE	1012
CEF94-PP:	.....	.....	L.....	.....	.....	.....	1012

FIG. 16C 21A

D6948-VP1:	MSDVFNPOA	RSKISAAFGI	KPTAGQDVEE	LLIPKVVVPP	EDPLASPSRL	AKFLRENGYK	60
CEF94-VP1:	I.....	T.....	.....	.....	.....	.....	60
D6948-VP1:	ILQPRSLPEN	EEYETDQILP	DLAWMRQIEG	AVLKPTLSLP	IGDQEYFPKY	YPTHRPSKEK	120
CEF94-VP1:	V.....	.....	.....	.....	.....	.....	120
D6948-VP1:	PNAYPPDIAL	LQMIYLFLO	VPEATDNLKD	EVTLLTONIR	DKAYSGTYM	GOATRLVAMK	180
CEF94-VP1:	.....	.....	NEG.....	.....	.....	.....	180
D6948-VP1:	EVATGRNPNK	DPLKLGTYFE	SIAQLLDITL	PVGPPGEDDK	PWVPLTRVPS	RMLVLTGDVD	240
CEF94-VP1:	.....	.....	.....	.....	.....	.....	240
D6948-VP1:	GEFEVEDYLP	KINKSSSGL	PYVGRTKGET	IGEMIAISNQ	FLRELSALLK	QGAGTKGSNK	300
CEF94-VP1:	D.....	.....	.....	.....	T.....	.....	300
D6948-VP1:	KKLLSMLSDY	WYLSGCLLFP	KAERYDKSTW	LTKTRNIWSA	PSPTMLMISM	ITWPVMSNSP	360
CEF94-VP1:	.....	.....	.....	.....	.....	.....	360
D6948-VP1:	NNVLNIEGCP	SLYKENPFRG	GLNRIVEWIM	APDEPKALVY	ADNIYIVHSN	TWYSIDLEKG	420
CEF94-VP1:	.....	.....	.....	L.....	E.....	.....	420
D6948-VP1:	EANCTRQHMQ	AAMYIILTRG	WSDNGDPMFN	QTWATEFAMNI	APALVVDSSC	LIMNLQIKTY	480
CEF94-VP1:	.....	.....	.....	.....	.....	.....	480
D6948-VP1:	GQSGNAATEF	INNHLSTLV	LDOWNLMKQP	SPDSEEFKSI	EDKLGINFKI	ERSIDDIRGK	540
CEF94-VP1:	.....	.....	.....	R.....	R.....	.....	540
D6948-VP1:	LRQLVPLAQP	GYLSSGGVEPE	QPSPTVELDL	LGWSATYSKD	LGIYVPVLDK	ERLFCSAAYP	600
CEF94-VP1:	L.....	.....	S.....	.....	.....	.....	600
D6948-VP1:	KGVENKSLKS	KVGIEQAYKV	VRYEALRLVG	GWNYPLLNKA	CKNNASAARR	HLEAKGFPLD	660
CEF94-VP1:	.....	.....	.....	.....	G.....	.....	660
D6948-VP1:	EFLAEWSELS	EFGEAFEGFN	IKLTVTPESL	AELNRPVPPK	PPNVNRPVNT	GGLKAVSNAL	720
CEF94-VP1:	.....	.....	.....	S.....	K.....	.....	720

~~FIG. 16C~~ ~~(Continued)~~ FIG. 21B

D6948-VP1:	KTGRYRNEAG	LSGLVLLATA	RSRLQDAVKA	KAEAEKHLHKS	KPDDPDADWF	ERSETLSDLL	780
CEF94-VP1:	.....	.....	.....	.....	.....	.....	780
D6948-VP1:	EKADIASKVA	HSALVETSDA	LEAVQSTSVY	TPKYPEVKNP	QTASNPVVGL	HLPKRRATGV	840
CEF94-VP1:	.....	.....	.....	.....	.....	.....	840
D6948-VP1:	QAALLGAGTS	RPMGMEAPTR	SKNAVKNMAKR	RQRQESRQ-	-		879
CEF94-VP1:	.....	.....	.....	.....	.....Q	P	881

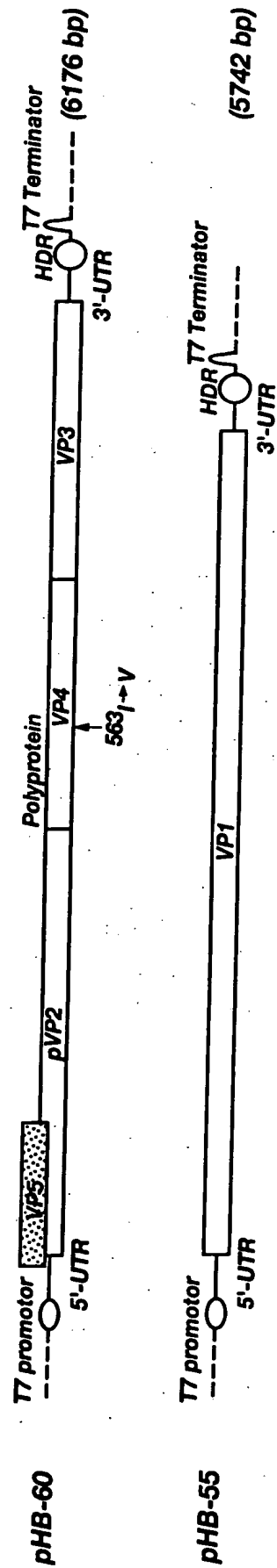
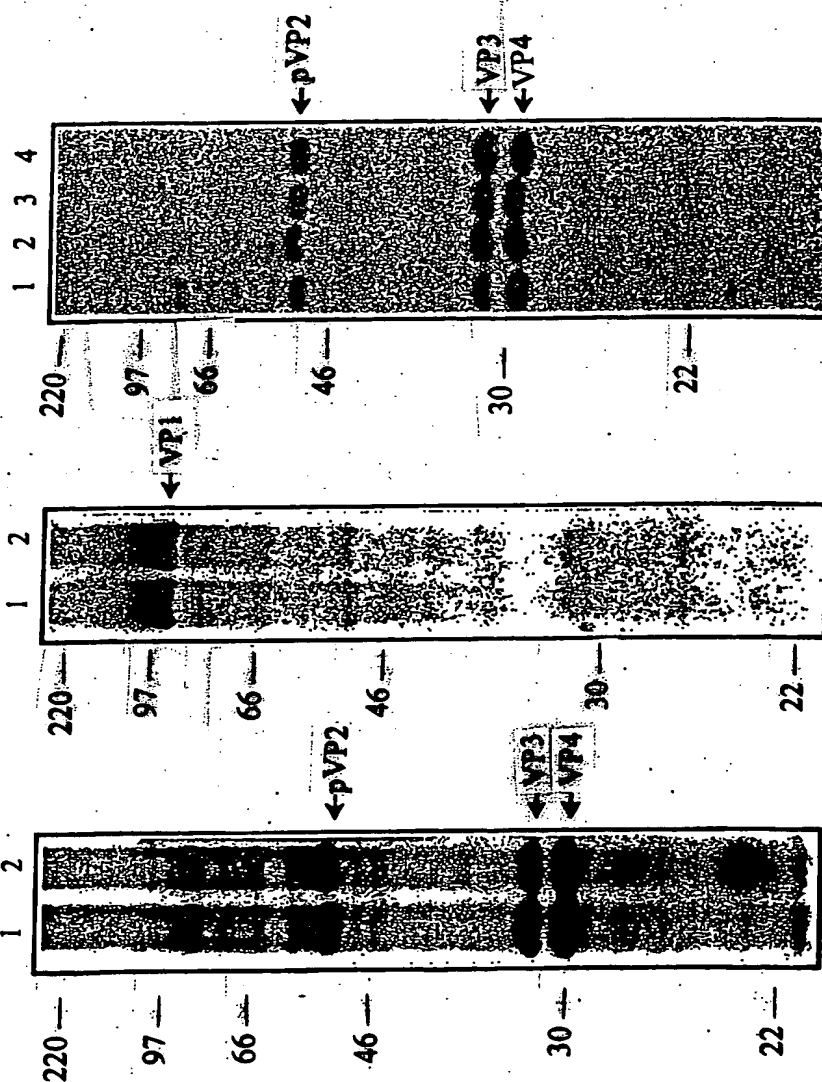


FIG. 17 22

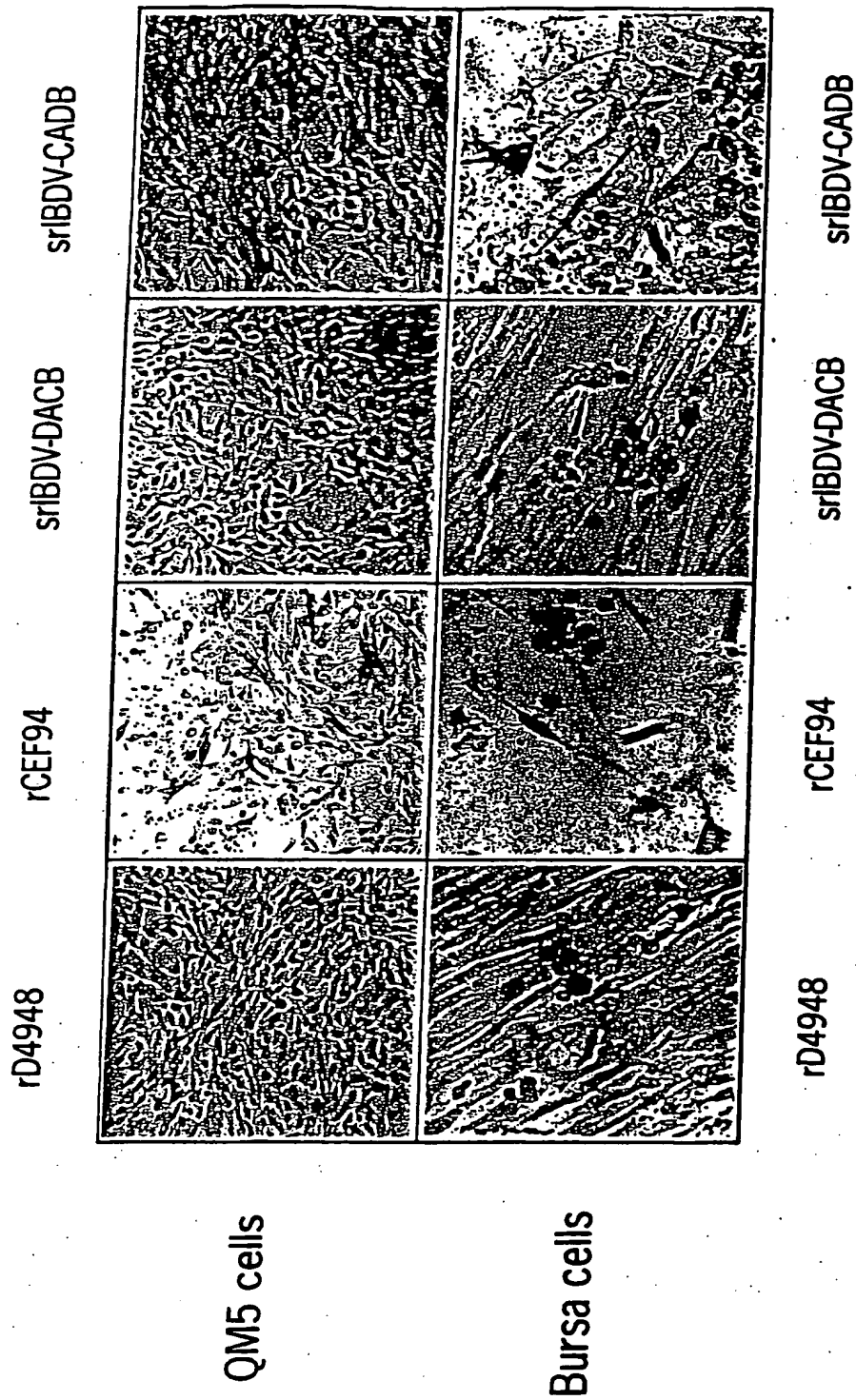
23C
FIG. 18C



23B
FIG. 18B

23A
FIG. 18A

FIG. 10 24



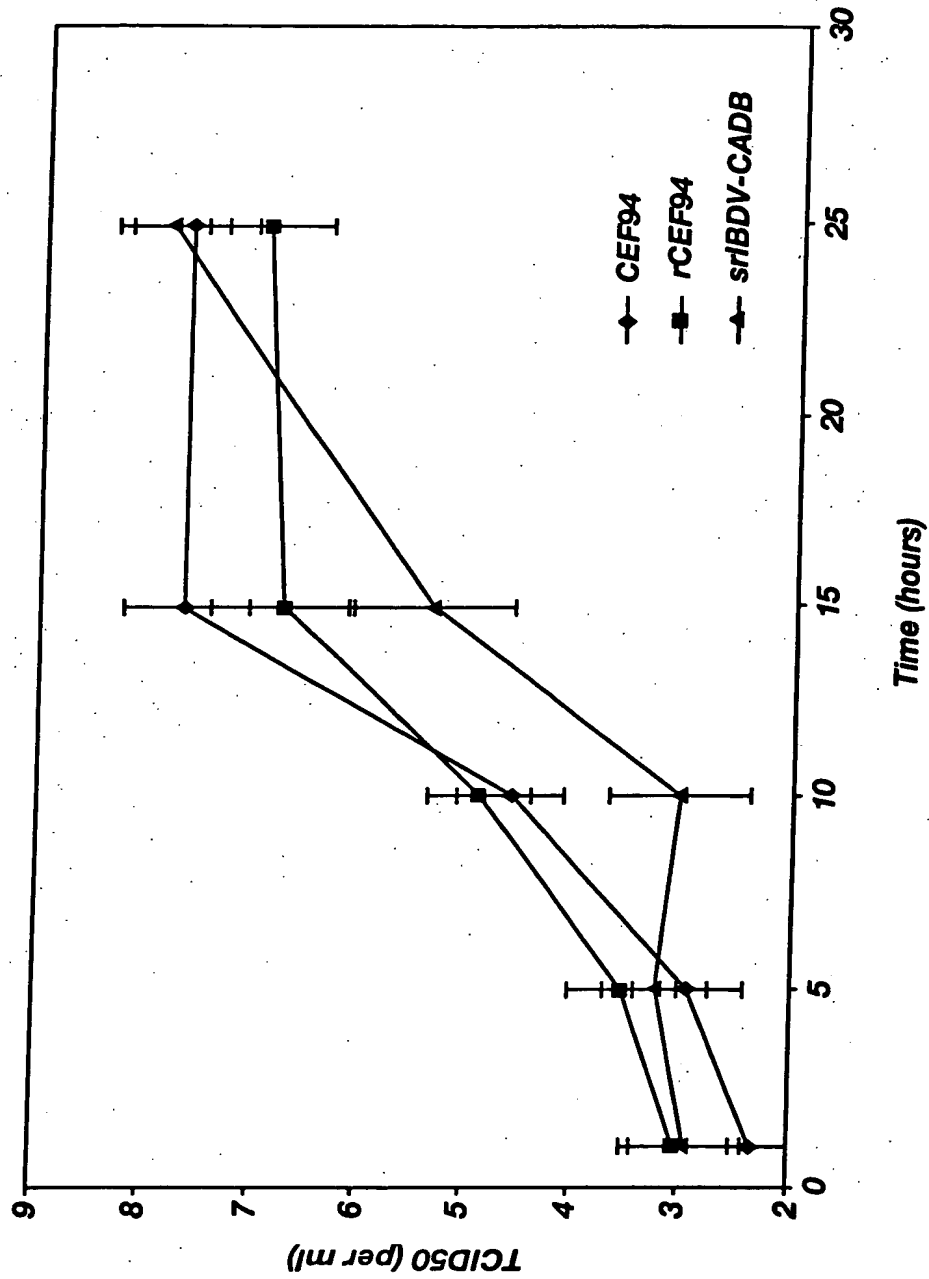


FIG. 20 25

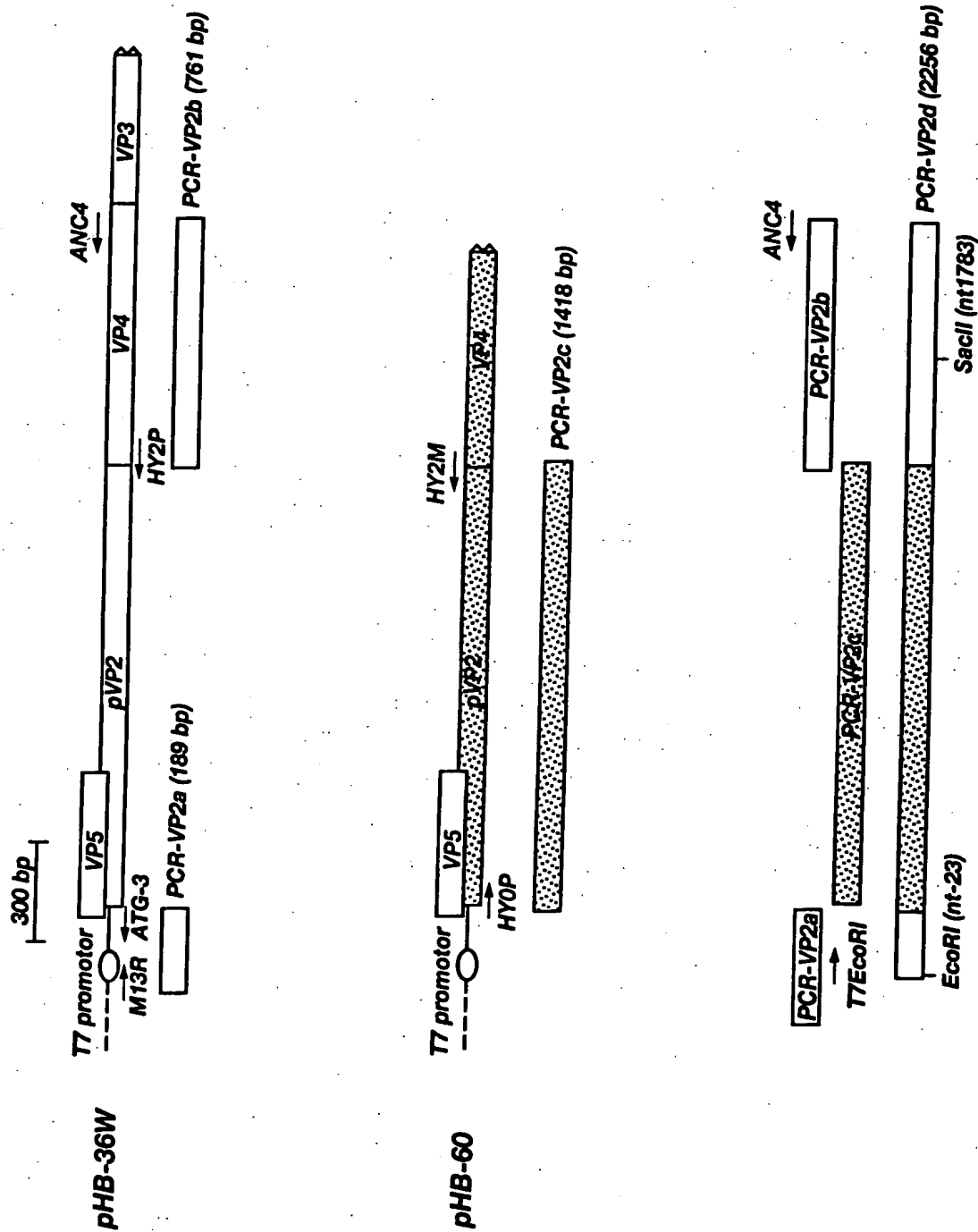
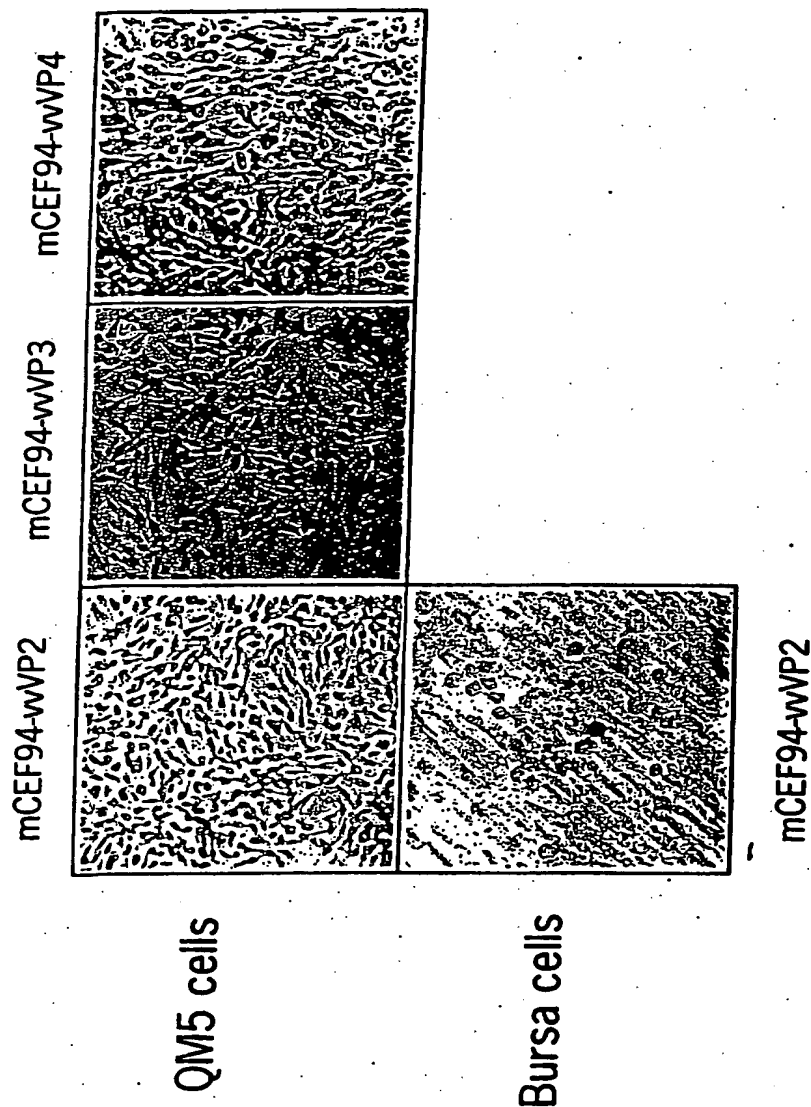


FIG. 26

FIG. 22



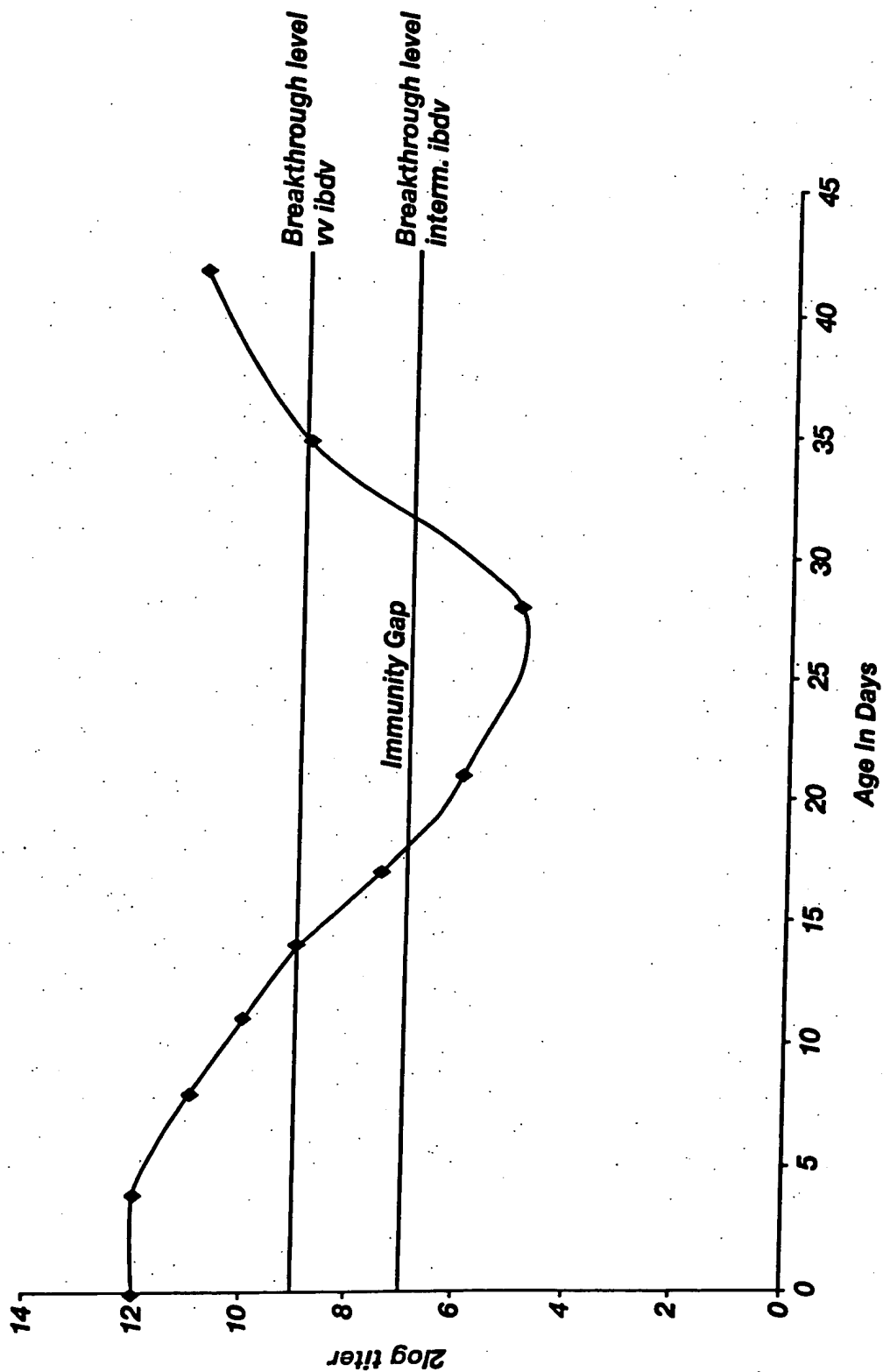


FIG. 1

FIG. 2A

CONSENSUS:	ggatacgatc	ggtctgacc	cgggggagtc	acccggggac	aggcygwcaa ggycttgttc	60
CEF94-A:	.....	.....	.....	.....	....C.t... .t.....	60
D6948-A:	.....	.....	.....	.....	....t.a... .C.....	60
TY89-A:	-----	-----	-----	-----	-----	
CONSENSUS:	caggatgga	ctcctccttc	tacaaygcta	tcattgatgg	tyagtagaga tcagacaaac	120
CEF94-A:	.....	.....	....C.....	.....	.C.....	120
D6948-A:	.....	.....	....t.....	.....	.t.....	120
TY89-A:	-----	-----	-----	-----	-----	
CONSENSUS:	gatcgcacg	atgacraacc	tgcaagatca	aaccaaacag	attgttccgt tcatacggag	180
CEF94-A:	.....	....a.....	.....	.....	.....	180
D6948-A:	.....	....g.....	.....	.....	.....	180
TY89-A:	-----	-----	-----	-----	-----	
CONSENSUS:	ccttctgatg	ccaacaaccg	gaccggcgtc	cattccggac	gacaccctrg agaagcacac	240
CEF94-A:	.....	.....	.....	.....	.....g.....	240
D6948-A:	.....	.....	.....	.....	....a.....	240
TY89-A:	-----	-----	-----	-----	-----	
CONSENSUS:	tctcaggta	gagacctcga	cctacaattt	gactgtgggg	gacacagggt cagggtcta	300
CEF94-A:	.....	.....	.....	.....	.....	300
D6948-A:	.....	.....	.....	.....	.....	300
TY89-A:	-----	-----	-----	-----	-----	
CONSENSUS:	tgtctttttc	cctggwttcc	ctggctcaat	tgtgggtgct	cactacacac tgcagagcaa	360
CEF94-A:	.....	....a.....	.....	.....	.....	360
D6948-A:	.....	....t.....	.....	.....	.....	360
TY89-A:	-----	-----	-----	-----	-----	
CONSENSUS:	tgggaactac	aagtctgac	agatgctcct	gactgccccag	aacctaccgg ccagytaaaa	420
CEF94-A:	.....	.....	.....	.....	....t....	420
D6948-A:	.....	.....	.....	.....	....C....	420
TY89-A:	-----	-----	-----	-----	-----	

CONSENSUS:	cacaagcctc	agcrtygggg	gagarctcgt	gtttcaaca	agcgtccamg	gccttrtact	900
CEF94-A:	.....	..g.t...	....g....	.....	.....C.	.....g....	900
D6948-A:	.....	..a.c...	..a....	.....	.....a.	.....a....	900
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	gggygcyacc	atctacctya	taggccttga	tgggacwgcg	gtaatcacca	grgctgtggc	960
CEF94-A:	..C.C...	.....C.	.....	....a...	.....	..g.....	960
D6948-A:	..t.t...	.....t.	.....	....t...	.....	..a.....	960
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	cgcaracaat	gggctracgr	ccggcacysga	caacctttwg	ccattcaatm	ttgtgattcc	1020
CEF94-A:	....a....	....g..a	.....C..	.....t..	.....a	.....	1020
D6948-A:	....g....	....a..g	.....t..	....a...	.....C	.....	1020
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	aacmarcgag	ataaccacgc	caatcacatc	catcaaaactg	gagatagtga	cctccaaaag	1080
CEF94-A:	..a.a...	.....	.....	.....	.....	.....	1080
D6948-A:	..c.g...	.....	.....	.....	.....	.....	1080
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	tggtggtcag	gcrggggatc	agatgtcrtg	gtcrgcaagw	gggagcctag	cagtgacgat	1140
CEF94-A:	.....	..a....	.....g..	..g....a	.....	.....	1140
D6948-A:	.....	..g....	.....a..	..a....t	.....	.....	1140
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	ccayggtggc	aactatccag	gggccctccg	tcccgtcacr	ctagtrgcct	acgaaagagt	1200
CEF94-A:	..t....	.....	.....	.....g	.....g....	.....	1200
D6948-A:	..C....	.....	.....	.....a	.....a....	.....	1200
TY89-A:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	ggcaacagga	tcygtcggtta	cggtcgcygg	ggtgaggaac	ttcgagctga	tcccaaatcc	1260
CEF94-A:	.....	..C....	.....t..	.....	.....	.....	1260
D6948-A:	.....	..t....	.....C.	.....	.....	.....	1260
TY89-A:	-----	-----	-----	-----	-----	-----	

FIG. 2E

CONSENSUS: agcttacatg gatgtgttc gacccaaagt cccmatccat gtggcyatga cgggagccct 2160
CEF94-A:a.....t..... 2160
D6948-A:C.....C..... 2160
TY89-A: 2160

CONSENSUS: caaygcytrt ggcgagattg agaamgtrag ctttagaagc accaagctcg ccaactgcaca 2220
CEF94-A: ...t..t.g.a.a. 2220
D6948-A: ...C..C.a.C.g. 2220
TY89-A: 2220

CONSENSUS: ccgacttggc ctayaagtgg ctggtcccgg wgcattygay gtraacaccg ggyccaactg 2280
CEF94-A:t.....a.....C.t. .a.....C..... 2280
D6948-A:C.....t.....t..c..g.....t..... 2280
TY89-A: 2280

CONSENSUS: ggcragtgty atcaaagctt tycctcaciaa tccmcgmgaac tgggacaggy tmccytacct 2340
CEF94-A: ...a.....CC.....a.C... ..C.C..... 2340
D6948-A: ...g.....tt.....a.C... ..C.C..... 2340
TY89-A: 44

CONSENSUS: caacctwccm tayctyccac cmamwgcwgg acgycagtwc sayctkgccm tggchgctc 2400
CEF94-A:a..a .C..t... .C.at..a.. ..C...a. C.C..t...at..a.. 2400
D6948-A:t..a .C..t... .C.at..a.. ..C...a. g.C..g...aC..t.. 2400
TY89-A:t..c .t..c... .a.ca..t.. ..t...t. C.t..g...Ca..C.. 104

CONSENSUS: mgagttcaaa gagaccccng aactcgarr ygcygtsmgw gmatggang cwgcwgcmaa 2460
CEF94-A: a.....C.gag t..C..ca.a .a.....a. a..a..C.. 2460
D6948-A: a.....C.gag C..C..ca.a .C.....a. a..a..C.. 2460
TY89-A: C.....a.aga C..t..gc.t .a.....C. .t..t..a.. 164

CONSENSUS: cgtsgaccca ytrttccrmt cwgcdctcmr bgtsttcctg tggytggaag araaygggat 2520
CEF94-A: ...g.....C.a.....aa. t..a...ag t..g.....C.....g.t.... 2520
D6948-A: ...g.....C.g.....aa. t..g...ag C..g.....C.....g.t.... 2520
TY89-A: ...C.....t.g....gc. a..t...ca g..C.....t.....a..C..... 224

FIG. 2F

CONSENSUS: tgtracygay atggcyaaact tgcgmctcag cgaccggaac gcmcaymgga tgmрмаattt 2580
CEF94-A: ...g..t..cC.....a..... ..C..tc... ..cga..... 2580
D6948-A: ...g..t..tC.....a..... ..C..tc... ..cgc..... 2580
TY89-A: ...a..c..ct.....C..... ..a..ca... ..aaa..... 284

CONSENSUS: ycthgcaay gcwcmcarg cmgmagcaa gtgcgaragr gccaaagtayg gsacrgcwgg 2640
CEF94-A: t..t.....C ..a..a..a. a..C..... ..a..a..gC. .g..a..a.. 2640
D6948-A: t..C.....C ..a..a..a. a..C..... ..a..a..aC. .g..a..a.. 2640
TY89-A: C..a.....t ..t..C..g. C..a..... ..g..g.....t. C..g..t.. 344

CONSENSUS: ctacggagtg gaggcymrg gccccacdcc agargargca cagagggara aagacacacg 2700
CEF94-A:tc.g.a.. ..g..a..a. 2700
D6948-A:cc.g.t.. ..g..a..a. 2700
TY89-A:ta.a.g.. ..a..g..g. 404

CONSENSUS: gatctcmaag aagatggara cbatgggcat ctacttygca acaccrgaat gggtagcact 2760
CEF94-A:a..g. C..... ..t.. ..a.. 2760
D6948-A:a..g. t..... ..t.. ..a.. 2760
TY89-A:C..... ..a..g.....C..... ..g..... 464

CONSENSUS: caaygggcac cgrgsgccaa gccccggcca gctvaagtac tggcaraaca camgagaaat 2820
CEF94-A: ...t..... ..a..g..... ..a..... ..g..... ..C..... 2820
D6948-A: ...t..... ..g..g..... ..g..... ..g..... ..C..... 2820
TY89-A: ...C..... ..a..C..... ..C..... ..a..... ..a..... 524

CONSENSUS: accdgahccm aacgaggact aycyagacta ygtgcaygcr gagaagagcc ggttgccrtc 2880
CEF94-A: ...g..c..at.t..... C.....t..aa.. 2880
D6948-A: ...t..t..aC.t..... C.....t..aa.. 2880
TY89-A: ...a..a..cC.C..... t.....C..gg.. 584

CONSENSUS: agaagaacar rtcytaaggg cagcyacgtc gatctacggg gctccaggac aggcwgarc 2940
CEF94-A:a a..C..... ..t..... ..a..... ..a..g.. 2940
D6948-A:a a..C..... ..t..... ..a..... ..a..g.. 2940
TY89-A:g g..t..... ..C..... ..a..... ..t..a.. 644

FIG. 2G

CONSENSUS: accccaagcy ttcatagacg aagtygccar rgtctatgaa atcaaccatg grcgtggycc 3000
CEF94-A:tt....a a.....a.....c.. 3000
D6948-A:cc.....a a.....g.....c.. 3000
TY89-A:cc.....g g.....g.....t.. 704

CONSENSUS: maaccargar cagatgaarg aycgtgctcyt gactgcatg gagatgaagc atcgcaatcc 3060
CEF94-A: a.....a..aa. t.....t. 3060
D6948-A: c.....a..aa. t.....c. 3060
TY89-A: a.....g..gg. c.....c. 764

CONSENSUS: caggcgggct cyaccaaaagc cmaagccaaa acccaatgct ccawcacaga gacccctgg 3120
CEF94-A:t.....t.....c.....a..... 3120
D6948-A:c.....c.....c.....a..... 3120
TY89-A:c.....c.....a.....t..... 824

CONSENSUS: wggctgggc cgctggatca ggrcbgtctc tgaygaggac ytkgagtga gywcctggga 3180
CEF94-A: t.....a.c.....t..... c.t......ta..... 3180
D6948-A: t.....g.t.....t..... c.t......ct..... 3180
TY89-A: a.....a.g.....c..... t.g......ct..... 884

CONSENSUS: gtctcccgc accaccgcg caggygtgga caccaattmr kmhhtaswrm atycsaaatt 3240
CEF94-A:t.....cg gact..caac ..c.c..... 3240
D6948-A:c.....cg gccca..caac ..c.c..... 3240
TY89-A:t.....aa tcac..gtga ..t.g..... 944

CONSENSUS: ggatccgttc gcgggtcccc 3260
CEF94-A: 3260
D6948-A: 3260
TY89-A: 964

FIG. 3A

CONSENSUS: ggatacgaatg ggtctgaccc tctgggagtc acgaattaac gtggctacta ggggygatrm 60
CEF94-B:C...aa 60
D6948-B:t...gc 60

CONSENSUS: ccrccgctrg ctgccacggt agtggtctct ctcttgatg attctccac catgagtgc 120
CEF94-B: ..g.....g.....g..... 120
D6948-B: ..a.....a.....a..... 120

CONSENSUS: rttttcaaya gtccacaggc gcgaagcamg atmtcagcag cgttcggcat aaagcctacw 180
CEF94-B: a.....C.....C.....t 180
D6948-B: g.....t.....a.....a 180

CONSENSUS: gctggacarg aygtggaaga actcytgatc cctaargtyt ggggtgccacc tgaggatccs 240
CEF94-B:a..C.....t.....a..t.....g 240
D6948-B:g..t.....C.....g..C.....C 240

CONSENSUS: ytkgccagcc ctagtgcwct ggcmagttc ctcagrgara acggctacaa rrttytgacg 300
CEF94-B: C.t.....a.....a.....a..g.....ag..t..... 300
D6948-B: t.g.....t.....C.....g..a.....ga..C..... 300

CONSENSUS: ccacgggtctc trccygagaa tgaggagtat gagaccgayc aaatactccc wgacytagcw 360
CEF94-B:g..C.....t.....C.....a...t....a 360
D6948-B:a..t.....t.....t.....t...C....t 360

CONSENSUS: tggaatgmgrc agatagargg rgctgtttta aaaccmacyc tatctctccc yattggagay 420
CEF94-B:C.a.....a..g.....C..t.....t.....t 420
D6948-B:a.g.....g..a.....a..C.....C.....C 420

CONSENSUS: caggagtact tcccwaarta ctaccaaca caycgcccka gcaaggaraa gcccaatgcg 480
CEF94-B:a..g.....t.....t.....g..... 480
D6948-B:t..a.....C.....g.....a..... 480

FIG. 3B

CONSENSUS: taccgcgcmg ayatcgcayt actcaagcag atgatyatcy tgtttctcca ggttccmgag 540
CEF94-B:a. .C.....C.t.....t.....C.....a... 540
D6948-B:C. .t.....t.C.....t.....C..... 540

CONSENSUS: gccammgakr rcctwaarga tgargtmacc ctmytracc aaaacatwag rgayaargcc 600
CEF94-B:ac..gg g...a..g.. ..a..a... .ct.g... ..a...a... g..C..g... 600
D6948-B:ca..ta a..t..a... ..g..C... ..ac.a.... ..t...t...a... 600

CONSENSUS: tayggragt ggcacctacat gggacargcm acymgacttg tkgcyatgaa rgaggygccc 660
CEF94-B: ..t..a.... ..a....a..a .tc..... .g..C..... g.....C... 660
D6948-B: ..C..g.... ..a....g..C .ca..... .t..t..... a.....t... 660

CONSENSUS: actggragaa acccaaaciaa rgatcctcta aagcttggtt acacyttga gagcatmgcs 720
CEF94-B:a.... ..a....g..... ..t..... ..C...C..g 720
D6948-B:g.... ..a..... ..C..... ..a...a..C 720

CONSENSUS: cagctacttg acatcacwyt accggtaggc ccaccgggtg aggatgacaa gccctgggtr 780
CEF94-B:ac.tt.a..... ..a.....g 780
D6948-B:a..... ..a..... ..a.....a 780

CONSENSUS: ccaactcaciaa grgtgccgtc amggatgttg gtwtgacgg gmgacgtaga tggsgamttt 840
CEF94-B:a..... .C..... ..a..... ..a.....C... 840
D6948-B:g..... .a..... ..t..... ..C.....g..a... 840

CONSENSUS: gaggttgarg aytaccttcc caaaatcaac ctcaagtcat caagtggact rccmtatgtw 900
CEF94-B:a. .t..... ..a..... ..a.....a...a 900
D6948-B:g. .C..... ..a..... ..g..C.....t 900

CONSENSUS: ggtcgcacca aaggagarac wattggsgag atgatatgcy tmtcraacca gtttctymga 960
CEF94-B:g.. a.....C... ..t...C..a.....Ca... 960
D6948-B:a.. t.....g... ..C.....a..g.....tc... 960

FIG. 3C

CONSENSUS: gagctatcar crctgytgaa gcarggtgca gggacaaarg ggtcraacaa gaagaagctr 1020
CEF94-B:a .a...t... ..a.....g.....a.....a 1020
D6948-B:g .g...c... ..g.....a.....g.....g 1020

CONSENSUS: ctacgcatgy taagtacta ytggtactta tcatgyggc tttgtttcc maaggctgar 1080
CEF94-B:ttc.....a.....a 1080
D6948-B:cct.....c.....g 1080

CONSENSUS: aggtacgaca aaagyacatg gtcaccaag acccgkaaca tatggtcagc tccatcmcca 1140
CEF94-B:t..... ..g..... ..c... 1140
D6948-B:c..... ..t..... ..a... 1140

CONSENSUS: acacacctca tgatctcwat gatmacctgg cccgtgatgt ccaayagccc aaayaacgtg 1200
CEF94-B:t... ..c..... ..c..... ..t..... 1200
D6948-B:a... ..a..... ..t..... ..c..... 1200

CONSENSUS: ttgaacattg argggtgtcc rtcactctac aarttcaacc cgtyyagagg wgggytraac 1260
CEF94-B:a..... ..a..... ..c..... ..a...t.g... 1260
D6948-B:g..... ..g..... ..t..... ..t...c.a... 1260

CONSENSUS: aggtcgtsg agtgatawt ggcyccggaw gaacccaagg cyytwgtata tgckgacaac 1320
CEF94-B:c.t.c.....atc.t..... ..g..... 1320
D6948-B:g.a.t.....tct.a..... ..t..... 1320

CONSENSUS: atatacatgg tycactcmaa cacgtgggtac tcaattgacc tagagaaggg tgaggcaaac 1380
CEF94-B:c.....a..... ..a..... ..a..... 1380
D6948-B:t.....c..... ..a..... ..a..... 1380

CONSENSUS: tgcackcgyc aacacatgca rgccgcmatg tactacatmc tyaccagagg rtggtcmgay 1440
CEF94-B:t.c.a..... ..a..... ..a..... ..g.....a..c 1440
D6948-B:g.t.g.....c..... ..t..... ..a.....c..t 1440

CONSENSUS: aacggygacc cmatgttcaa tcaracatgg gccaccttgg csatgaacat tgccccwgct 1500
CEF94-B:c..... ..a..... ..a..... ..c..... ..t... 1500
D6948-B:t.... ..c..... ..g..... ..g..... ..a... 1500

Proposed Amendment

Reply to Form PTO-948 dated 7/25/02

REPLACEMENT SHEET

FIG. 3D

CONSENSUS: ctagtktgtg actcatcrtg yctgatwatg aacctkara tyaagacmta tggtaaggc 1560
 CEF94-B:g.....g.. C.....a...g..a.. t.....C.. 1560
 D6948-B:t.....a.. t.....t...t..g.. C.....a.. 1560

CONSENSUS: agygggaatg cagccacstt catcaacaac cayctyytka gcacsctwgt gctwgaccag 1620
 CEF94-B: ..C..... ..g..... ..C..... ..C..ct.g.g..a.. ..t..... 1620
 D6948-B: ..t..... ..C..... ..t..... ..t..tc.t.C..t.. ..a..... 1620

CONSENSUS: tggaacytga tgarrcarcc yagwccagac agcgargagt tcaartcaat tgargacaag 1680
 CEF94-B:C.... ..ga..g.. C..a..... ..g..... ..a..... ..g..... 1680
 D6948-B:t.... ..ag..a.. t..t..... ..a..... ..g..... ..a..... 1680

CONSENSUS: ctrgggatca acttyaagat tgagaggtcc attgatgaya tyaggggcaa gctsagacag 1740
 CEF94-B: ..a..t.... ..t.... ..t..... ..t..... ..t..C..... ..g..... 1740
 D6948-B: ..g..C.... ..C..... ..t..... ..C..... ..t..... ..C..... 1740

CONSENSUS: cttgtccycc ttgcacaacc aggttacctg agtggrgggg tygaaccaga rcaayccagc 1800
 CEF94-B:t..t....g..... ..g..... ..t..... ..a..t.... 1800
 D6948-B:C....t....a..... ..a..... ..C..... ..g..C.... 1800

CONSENSUS: ccaactgtwg agctkgacct actmggrtgg tcwgwacwt acagcaaaga tctygggatac 1860
 CEF94-B:t..t....a..g... ..a..t..a.t..... ..C..... 1860
 D6948-B:a..g..... ..C..a.... ..t..a..t.t..... ..t..... 1860

CONSENSUS: tatgtgccgg tgcttgacaa ggaacgcyta ttttgytctg ctgcgtatcc caarggrgta 1920
 CEF94-B:t....t..... ..C..... ..t.... ..t..... ..g..a... 1920
 D6948-B:t....t..... ..t..... ..t..... ..C..... ..a..g... 1920

CONSENSUS: gagaayaara gycctaartc caargtyggg atcgagcarg catacaargt wgtcagggtay 1980
 CEF94-B:C..g. .t.....g.. ..a..C... ..t.....g.g.....a.. ..t..... 1980
 D6948-B:t..a.. .C.....a.. ..g..t... ..t.....a.. ..t.....a.. ..t.....c 1980

CONSENSUS: gaggcgttga gggttggtagg tggttggaac taccactcc tgaacaaagc ytgcaagaay 2040
 CEF94-B:t....t..... ..t..... ..t..... ..t..... ..C..... 2040
 D6948-B:t....t..... ..t..... ..t..... ..t..... ..t.....c 2040

FIG. 3E

CONSENSUS: aaygcargyg cmgctcggcg gcatctggag gccaaggggt tccrctcga ygagttcctm 2100
CEF94-B: ..C...g.C. .C..... .a..... C.....a 2100
D6948-B: ..t...a.t. .a..... .g..... t.....c 2100

CONSENSUS: gccgagtggg cwgagytgtc mgagttcggw gargcyttcg aaggcttcaa yatcaagctg 2160
CEF94-B:t...C... a.....t .g.C... ..t..... 2160
D6948-B:a...t.... C.....a .a..t.... ..C..... 2160

CONSENSUS: acmgtaacay ckgagagcct mgccgaactk aacarccag taccocccaa rccyccaaat 2220
CEF94-B: ..C.....t .t..... a.....g ...ag.... ..C..... g.C..... 2220
D6948-B: ..a.....C .g..... C.....t ...ga.... ..t..... a.t..... 2220

CONSENSUS: gtcaacagac cagtcaacac yggkggrctm aaggcagtca gcaaygccct caagaccggy 2280
CEF94-B:t..... .t.g..a..CC..... ..t.....t 2280
D6948-B:C..... C..t..g..at..... ..C.....c 2280

CONSENSUS: cgggtayagra aygaagccgg actragtgyy ctctgtctyc tagccacmgc mmgmagccgw 2340
CEF94-B:C..g. .C..... ..g.....tt.a.. aa.a.....t 2340
D6948-B:t..a. .t..... ..a.....CC.. ..C.....a 2340

CONSENSUS: ctrcargayg cagtyaaggc caaggcagar gccgagaaac tccacaagtc yaagccmgay 2400
CEF94-B: ..g..a..t.t..... ..a.....aC..... C.....a..c 2400
D6948-B: ..a..g..C.C..... ..g.....tC..t 2400

CONSENSUS: gaccccgatg cagactggtt ygaamgrtca gaaacytgtg cagacctkct ggagaaagcc 2460
CEF94-B:t..... ..C.....a... ..t.... ..t....t.... 2460
D6948-B:t..... ..C.....t... ..C.....g..g.. 2460

CONSENSUS: gacatygccca gcaaggctcg ycactcagca ctctgtgaaa caagcgacgc ycttgaagcr 2520
CEF94-B:C.... ..C.....t..... ..C.....c.....a 2520
D6948-B:t.... ..t..... ..t.....t.....g 2520

CONSENSUS: gtycagtcra cytcmgtgta cacyccmaag taccacagarg tyaagaaccc acagaccgcc 2580
CEF94-B: ..t.....g. ..t..C..... ..t..C... ..a..c..... 2580
D6948-B: ..C.....a. .C..a.... ..C..a.... ..t.....g. .t..... 2580

FIG. 3F

CONSENSUS: tccaaccccg ttgttgggt ccactgccc gccaaagarg ccaccggtgt ccaggcmgct 2640
CEF94-B:C... 2640
D6948-B:a... 2640

CONSENSUS: cttctcggag caggracgag cagaccaatg gggatggagg cyccaacacg gtccaagaac 2700
CEF94-B:C... 2700
D6948-B:t... 2700

CONSENSUS: gccgtgaaaa tggccaaamg gcggcaacgc caaaargaga gccgccaaya gccatgatgg 2760
CEF94-B:C... 2760
D6948-B:t... 2760

CONSENSUS: gaaccactca agaagaggac actaayccca gaccccgctat ccccggcctt cgcctgcggg 2820
CEF94-B:t... 2820
D6948-B:C... 2820

CONSENSUS: ggccccc 2827
CEF94-B: 2827
D6948-B: 2827

CONSENSUS:	MTNLQDQTQQ	IVPFIRSLIM	PTTGPASIPD	DTLEKHTLRS	ETSTYNLTVG	DTGSLIVFF	60
CEF94-PP:	.....	.....	.....	.....	.....	.....	60
D6948-PP:	.....	.....	.....	.....	.....	.....	60
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	PGFPGSIVGA	HYTLQSNNGY	KFDQMLLTAQ	NLPASYNYCR	LVSRLTVRS	STLPGGVYAL	120
CEF94-PP:	.....	.....	.....	.....	.....	.....	120
D6948-PP:	.....	.....	.....	.....	.....	.....	120
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	NGTINAVTFQ	GSLSELTDS	YNGLSMTAN	INDKIGNVLV	GEGVTLSLP	TSYDLGYVRL	180
CEF94-PP:	.....	.....	.....	.....	.....	.....	180
D6948-PP:	.....	.....	.....	.....	.....	.....	180
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	GDPIPAIGLD	PKMVATCDSS	DRPRVYTITA	ADDYQESSQY	Q.GGVITLTF	SANIDAITSL	240
CEF94-PP:	.....	.....	.....	.....	P.....	.....	240
D6948-PP:	.....	.....	.....	.....	A.....	.....	240
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	S.GGELVFQT	SV.GL.LGAT	IYLGFDGTA	VITRAVAA.N	GLT.GTDNL.	PFN.VIPT.E	300
CEF94-PP:	V.....	H.V....	.....	.....	T.....	L....N.	300
D6948-PP:	I.....	Q.I....	.....	.....	A.....	M...I....S.	300
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	ITQPITSIKL	EIVTSKSGGQ	AGDQMSWSA.	GSLAVTIHGG	NYPGALRPVT	LVAYERVATG	360
CEF94-PP:	.....	.....	R.....	.....	.....	.....	360
D6948-PP:	.....	.....	S.....	.....	.....	.....	360
TY89-PP:	-----	-----	-----	-----	-----	-----	
CONSENSUS:	SVVTVAGVSN	FELIPNPELA	KNLVTEYGRF	DPGAMNYTKL	ILSERDRLGI	KTVWPTREYT	420
CEF94-PP:	.....	.....	.....	.....	.....	.....	420
D6948-PP:	.....	.....	.....	.....	.....	.....	420
TY89-PP:	-----	-----	-----	-----	-----	-----	

FIG. 4B

CONSENSUS: DFEYFMEVA DLNSPLKIAG AFGKDIIRA .RRIAPVVS TLFPPAAPLA HAIGEGVDYL	480
CEF94-PP: I	480
D6948-PP: L	480
TY89-PP: -----	
CONSENSUS: LGDEAQAASG TARAASGKAR AASGRIRQLT LAADKGYEVV ANLFQVPQNP VVDGILASPG	540
CEF94-PP:	540
D6948-PP:	540
TY89-PP: -----	
CONSENSUS: .LRGAHNLC VLREGATLFP VVITVEDAM TPKALNSKMF AVIEGVREDL QPPSQRGSEI	600
CEF94-PP: V	600
D6948-PP: I	600
TY89-PP: -----	
CONSENSUS: RTLSGHRVYG YAPDGVLPLE TGRDVTVPPI DDVWDDSIML SKDPIPIVG NSGNLAIAYM	660
CEF94-PP:	660
D6948-PP:	660
TY89-PP: -----	
CONSENSUS: DVFRPKVPIH VAMTGALNA. GEIE.VSFRS TKLATAHRLG LKLAGPGAED VNTG.NWATF	720
CEF94-PP: C K P	720
D6948-PP: Y N S	720
TY89-PP: -----	
CONSENSUS: IKRFPHPNPRD WDRLPYLNLP YLPPNAGRQY HLAMAASEFK ETPELESVR AMEAAAANVDP	780
CEF94-PP:	780
D6948-PP: D	780
TY89-PP: -- T F L D	58
CONSENSUS: LFQSALSVM WLEENGIVTD MANFALSDPN AHRMRNFLAN APOAGSKSOR AKYGTAGYGV	840
CEF94-PP:	840
D6948-PP:	840
TY89-PP: .R..Q... K	118

FIG. 4C

CONSENSUS:	EARGTPEEA	QREKDRISK	KMETMGIYFA	TPEWVALNGH	RGSPGQLKY	WONTREIPDP	900
CEF94-PP:	.....	.....	.....	.....	.....	.....	900
D6948-PP:	.....	.....	.....	.....	.....	.....	900
TY89-PP:	.....	.....	.....	.....	.....	.....E.	178
CONSENSUS:	NEDYLDYVHA	EKSRLASEEQ	ILRAATSIYG	APQAEPPQA	FIDEVAKYE	INHGRGPNQE	960
CEF94-PP:	.....	.....	.....	.....	.....	.....	960
D6948-PP:	.....	.....	.....	.....	.....	.....	960
TY89-PP:	.....P	.....V	.....	.....	.....R	.....	238
CONSENSUS:	QMKDLLLTAM	EMKHRNPRA	PPKPKPKPNA	PTQPPGRLG	RWIRTVSD	LE	1012
CEF94-PP:	.....	.....	L	.....	.....	.....	1012
D6948-PP:	.....	.....	.....	.....	A	.....	1012
TY89-PP:	.....	.....	.....	S	.....	.....	290

FIG. 5A

CONSENSUS: MSD.FNSPQA RS.ISAAGI KPTAGQDVEE LLIPKVWVPP EDPLASPSRL AKFLRENGYK	60
CEF94-VP1: . . . I T	60
D6948-VP1: . . . V K	60
CONSENSUS: .LQPRSLPEN EEYETDQILP DLAWMRQIEG AVLKPTLSLP IGDQEYFPKY YPTHRPSKEK	120
CEF94-VP1: V	120
D6948-VP1: I	120
CONSENSUS: PNAYPPDIAL LKQMIYLFLO VPEA . . . LKD EVTLLTQNIR DKAYGSGTYM GOATRLVAMK	180
CEF94-VP1: NEG	180
D6948-VP1: TDN	180
CONSENSUS: EVATGRNPKNK DPLKLGTYFE SIAQLLDITL PVGPPGEDDK PWVPLTRVPS RMLVLTGDVD	240
CEF94-VP1:	240
D6948-VP1:	240
CONSENSUS: G.FEVEDYLP KINKSSSGL PYVGRTKGET IGEMIAISNQ FLRELS.LLK QGAGTKGSNK	300
CEF94-VP1: . D	300
D6948-VP1: . E T	300
CONSENSUS: KLLLSMLSDY WYLSGGLLEP KAERYDKSTW LTKTRNIWSA PSPTHLMISM ITWPVMSNSP	360
CEF94-VP1:	360
D6948-VP1:	360
CONSENSUS: NNVLNIEGCP SLYKFNPFRG GLNRIVEWI. AP.EPKALVY ADNIYIVHSN TWYSIDLEKG	420
CEF94-VP1: L	420
D6948-VP1: M	420
CONSENSUS: EANCTRQHMQ AAMYYILTRG WSDNGDPMFN QTWATFAMNI APALVVDSSC LIMNLQIKTY	480
CEF94-VP1:	480
D6948-VP1:	480
CONSENSUS: GQSGGNAATE INNHLSTLV LDQWNLM.QP .PDSEEFKSI EDKLGINFKI ERSIDDIRGK	540
CEF94-VP1: R	540
D6948-VP1: K S	540

FIG. 5B

CONSENSUS: LRQLV.LAQP GYLSGGVEPE Q.SPTVELDL LGWSATYSKD LGIYVPVLDK ERLFCSAAYP	600
CEF94-VP1: .....L.....S.....	600
D6948-VP1: .....P.....	600
CONSENSUS: KGVENKSLKS KVGIEQAYKV VRYEALRLVG GWNYPLLKA CKNNA.AARR HLEAKGFFLD	660
CEF94-VP1: .....G.....	660
D6948-VP1: .....S.....	660
CONSENSUS: EFLAEWSELS EFGEAFEGFN IKLTVT.ESL AELN.PVPPK PPNVNRPVNT GGLKAVSNAL	720
CEF94-VP1: .....S.....K.....	720
D6948-VP1: .....P.....R.....	720
CONSENSUS: KTGRYRNEAG LSGLVLLATA RSRLQDAVKA KAAEKLHKS KPDDPDADWF ERSETLSDLL	780
CEF94-VP1:	780
D6948-VP1:	780
CONSENSUS: EKADIASKVA HSALVETSDA LEAVQSTSVY TPKYPEVKNP QTASNPPVGL HLPKAKRATGV	840
CEF94-VP1:	840
D6948-VP1:	840
CONSENSUS: QAALLGAGTS RPMGMEAPTR SKNAVKNMAKR ROROKESRQ.	881
CEF94-VP1: .....Q P	881
D6948-VP1:--	879

FIG. 6

CONSENSUS:	MVSRDQTNDR	SDD.PARSNP	TDCSVHTEPS	DANNRTGVHS	GRHP.EAHSQ	VRDLDLQFDC	60
D6948-VP5:	.....	E.....	.....	.....	R.....	.....	60
CEF94-VP5:	.....	K.....	.....	.....	G.....	.....	60
CONSENSUS:	GGHRVRANCL	FPW.PWLNCG	CSLHTAEQWE	LQVRSDAPDC	PEPTGQLQLL	QASESESHSE	120
D6948-VP5:	.....	F.....	.....	.....	.....	.....	120
CEF94-VP5:	.....	I.....	.....	.....	.....	.....	120
CONSENSUS:	VKHT.WWRLC	TK.HHKRRDL	PRKPE				145
D6948-VP5:	....P.....	..W.....	.....				145
CEF94-VP5:	....S.....	..R.....	.....				145

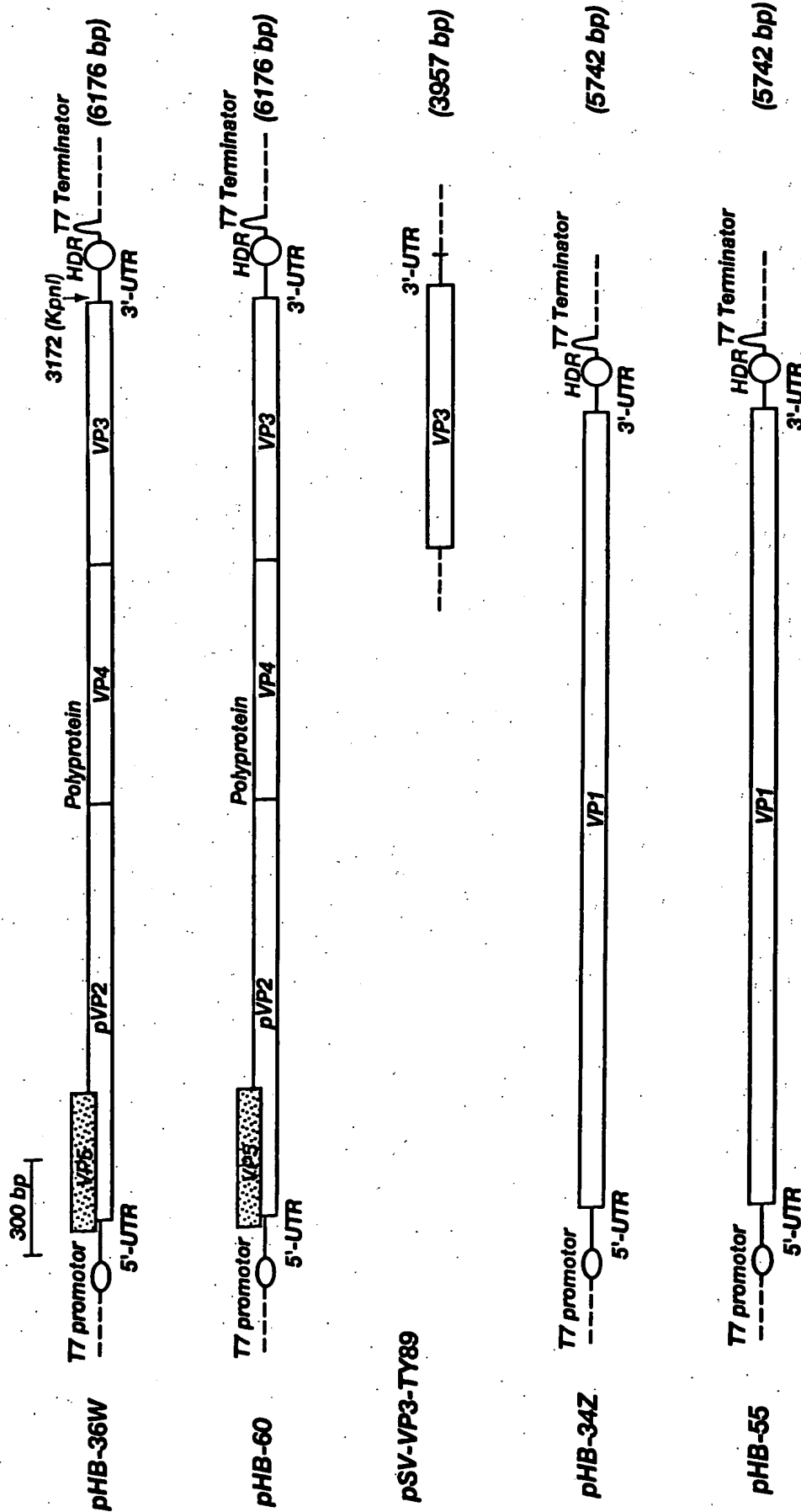


FIG. 7

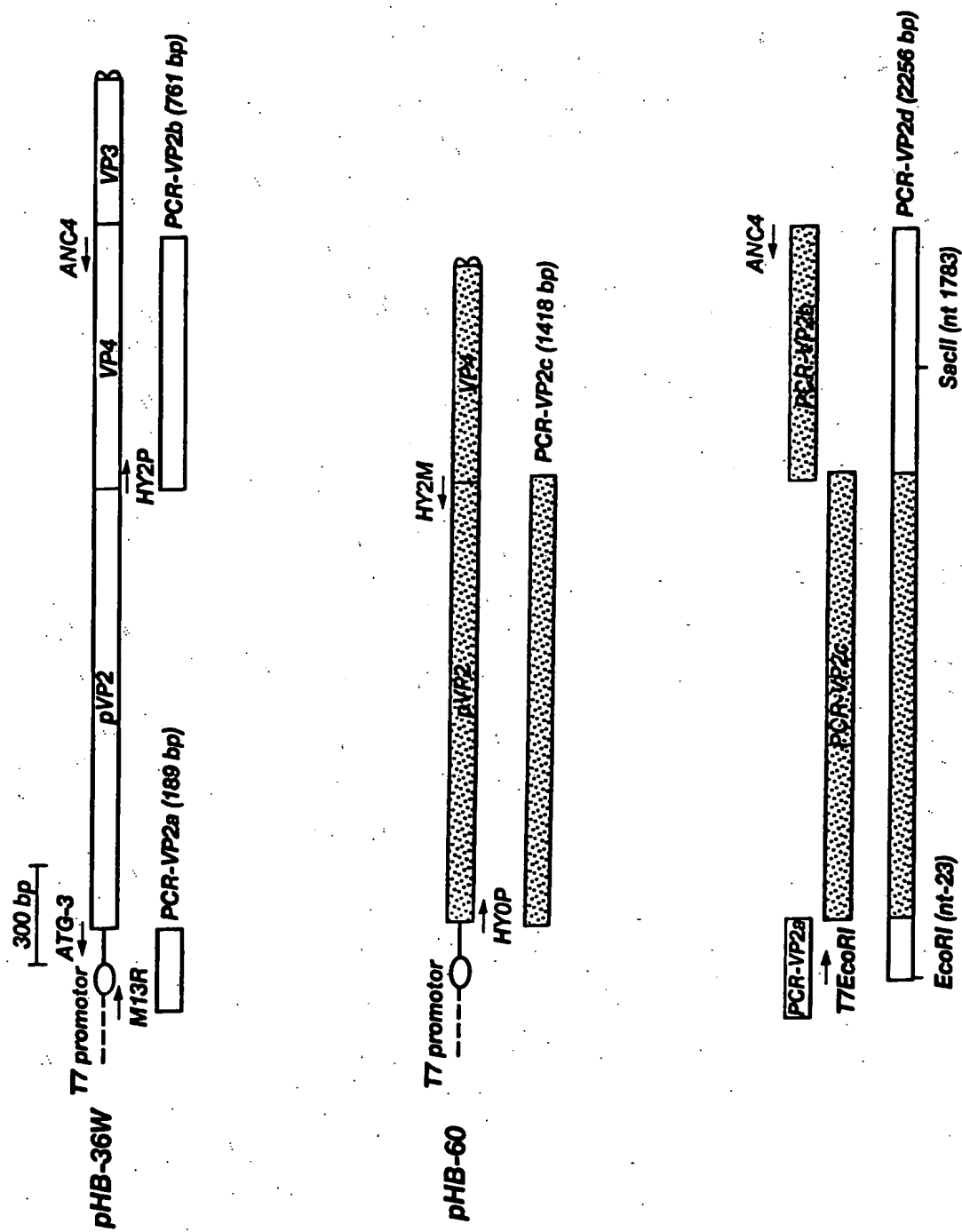


FIG. 8A

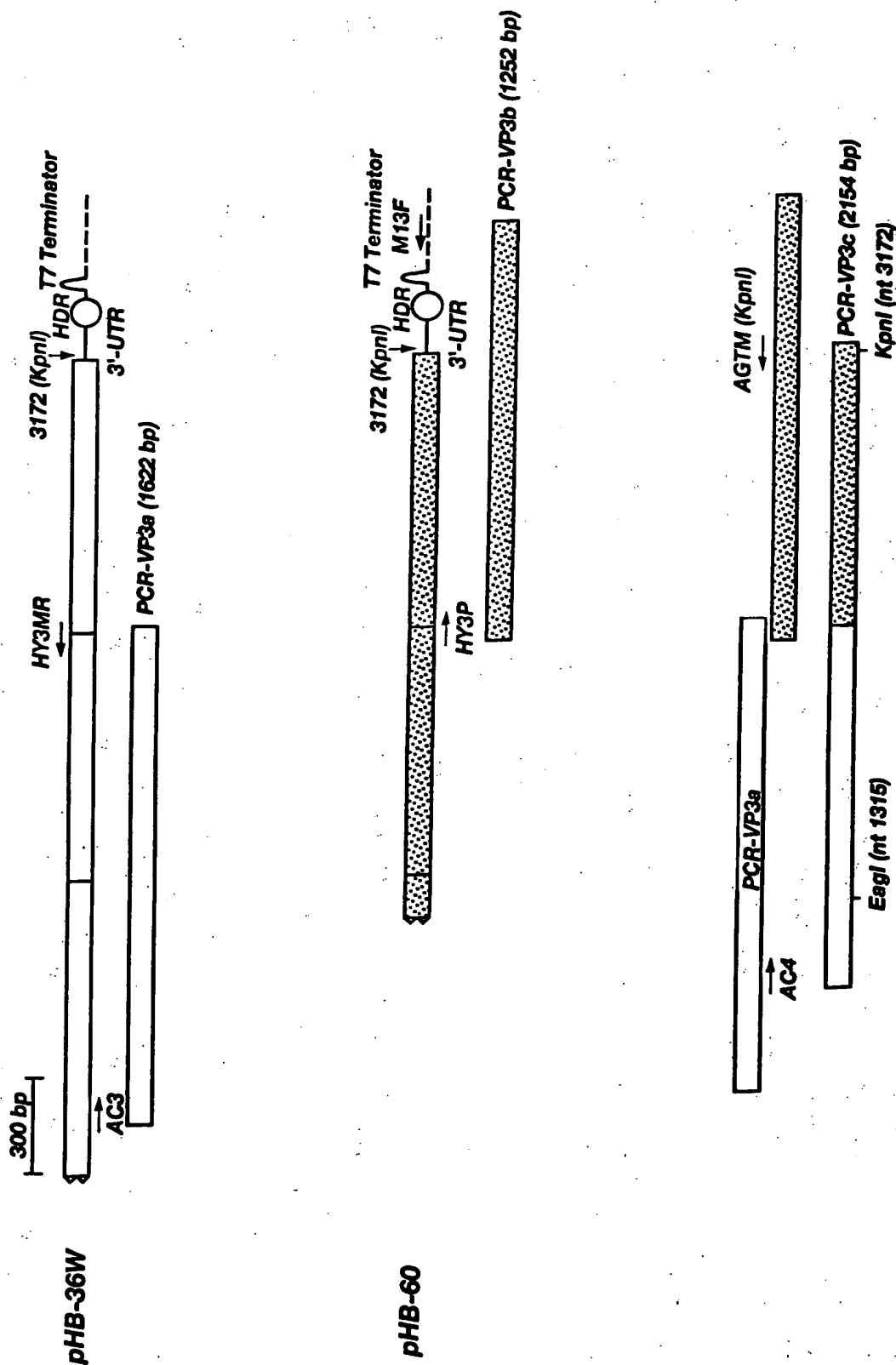


FIG. 8B

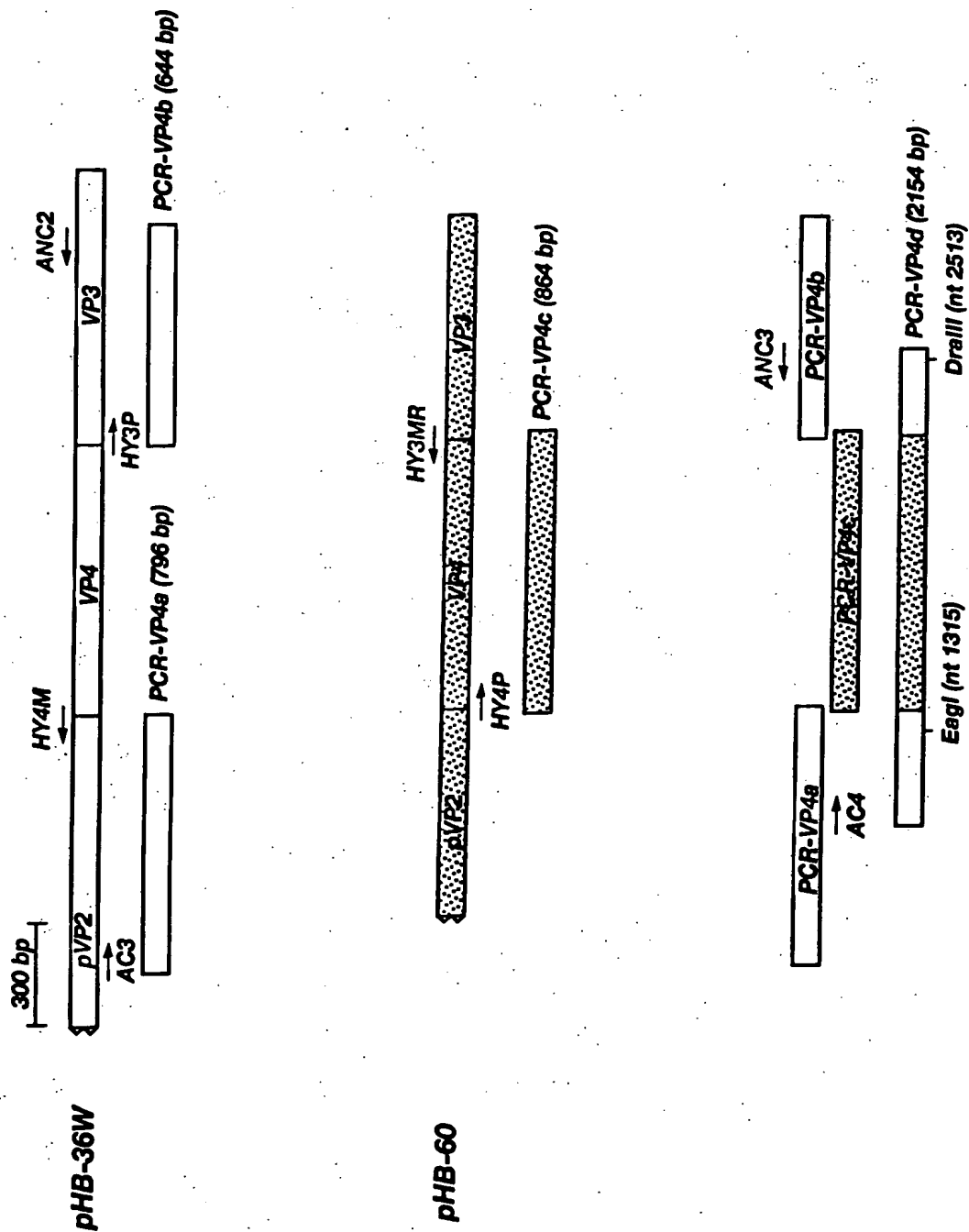


FIG. 8C

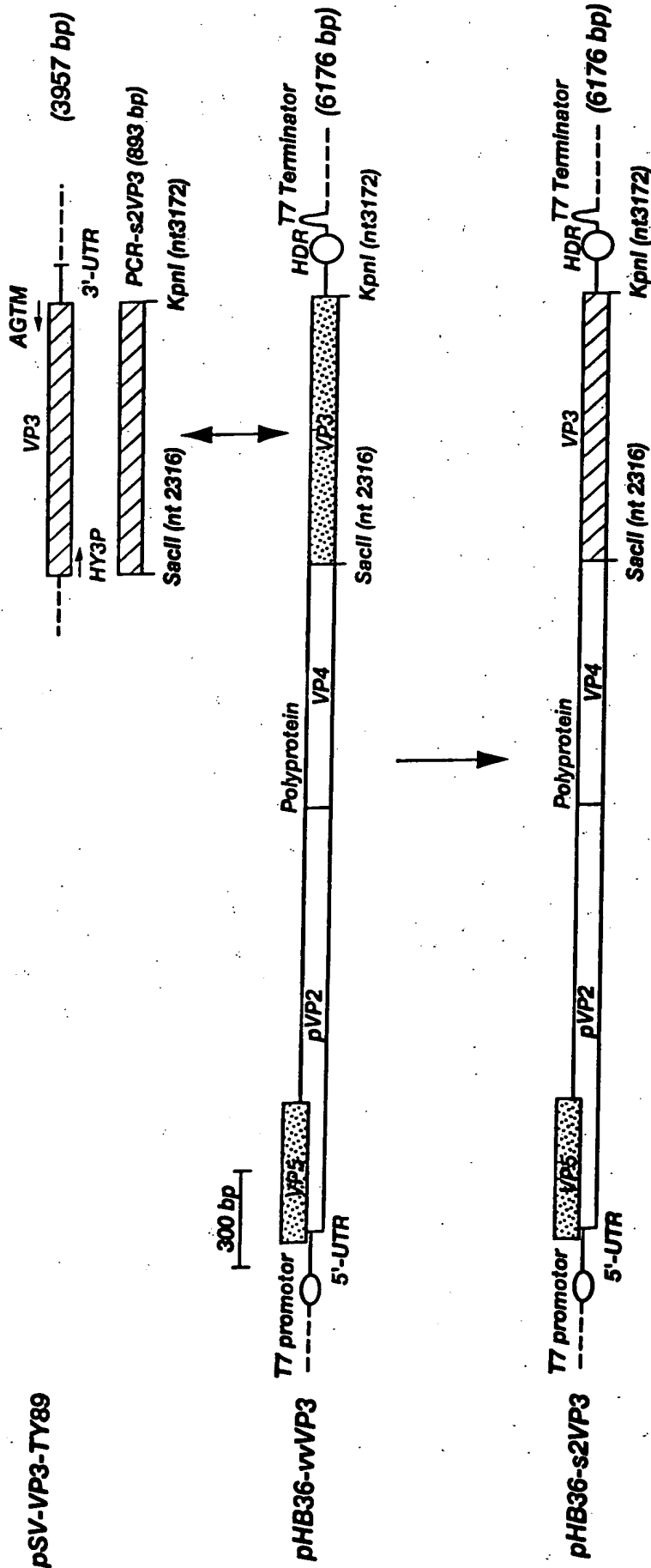


FIG. 8D

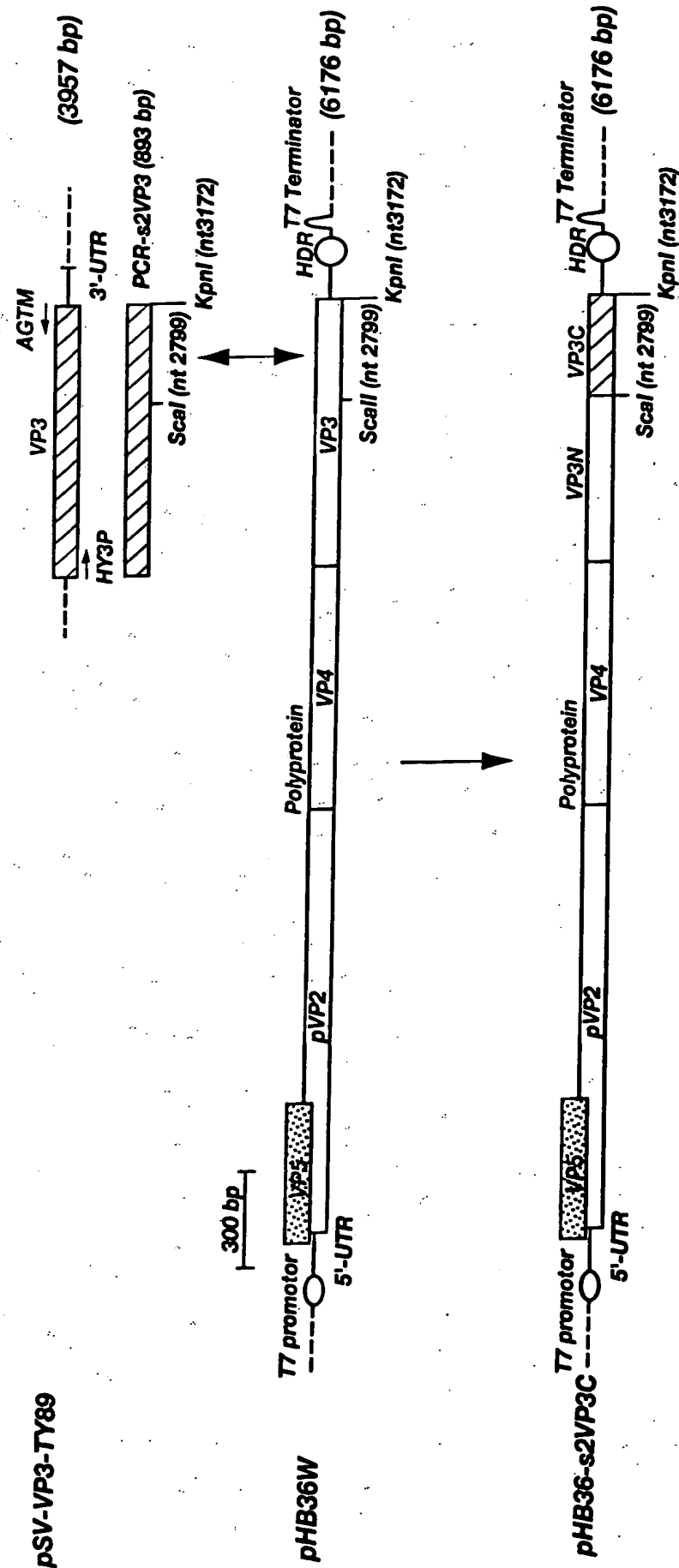


FIG. 8E

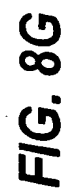


FIG. 9

VP4 ← → VP3

← SacII

CEf94-PP: 724-FPHNPRD WDRLPYLNLP YLPNAGROY HLAMAASEFK ETPELESVR AMEAAANVDP 780
TY89-PP: 724-.....T....F...L.....D... ..D..... 780

CEf94-PP: LFQSALSVFM WLENGIVTD MANFALSDPN AHRMRNFLAN APOAGSKSQR AKYGTAGYGV 840
TY89-PP: ..R...Q... ..K..... 840

← SacI

CEf94-PP: EARGTPEEA QREKDRISK KMETMGIYFA TPEWVALNGH RGPSPGQLKY WQNTREIPDP 900
TY89-PP: 900

CEf94-PP: NEDYLDYVHA EKSRLASEEQ ILRAATSIYG APQAEPPQA FIDEVAKVYE INHGRGPNQE 960
TY89-PP:V.....R... .. 960

CEf94-PP: QMKDLLLTAM EMKHRNPRRA LPKPKPKPNA PTQRPGRGRLG RWIRTVSDED LE 1012
TY89-PP:P.....S..... .. 1012

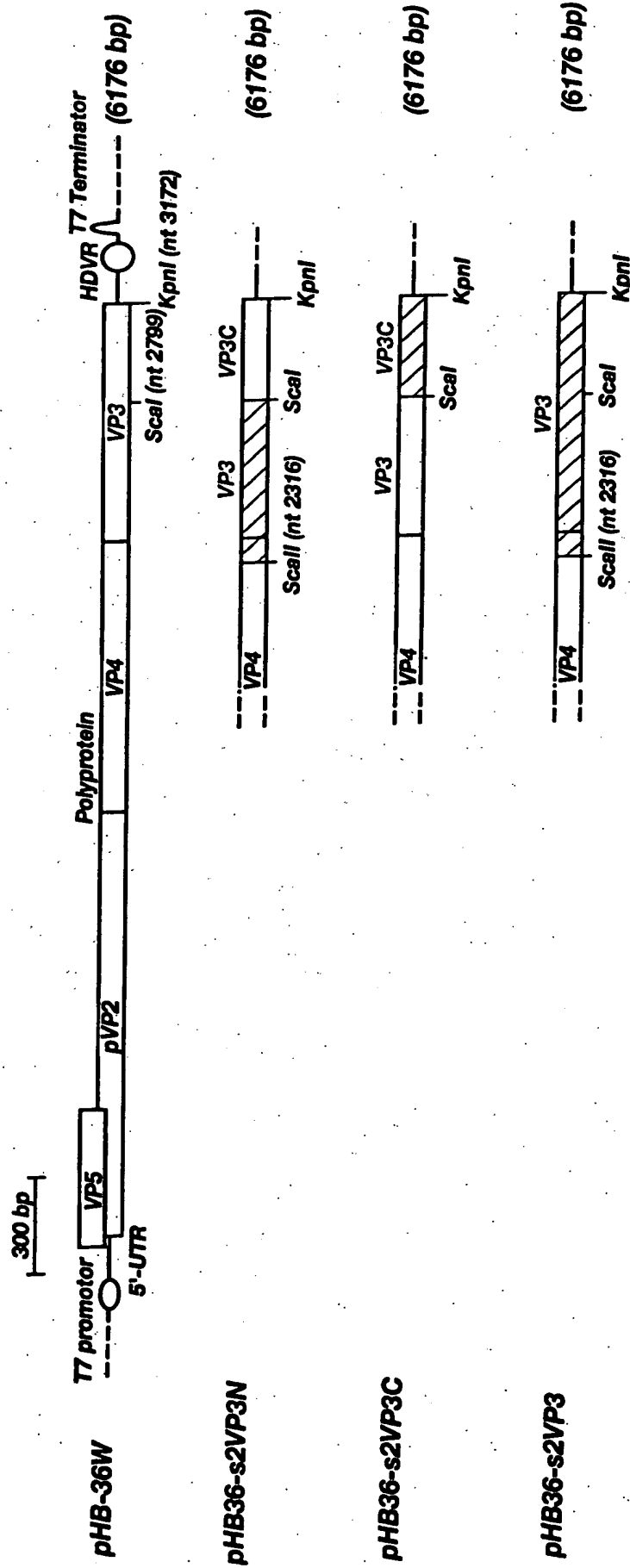
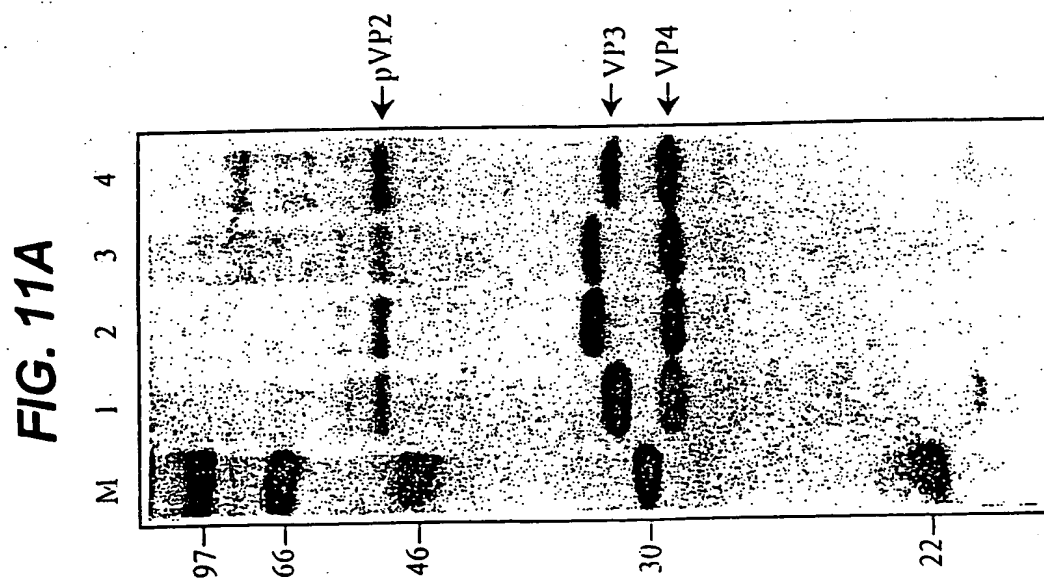
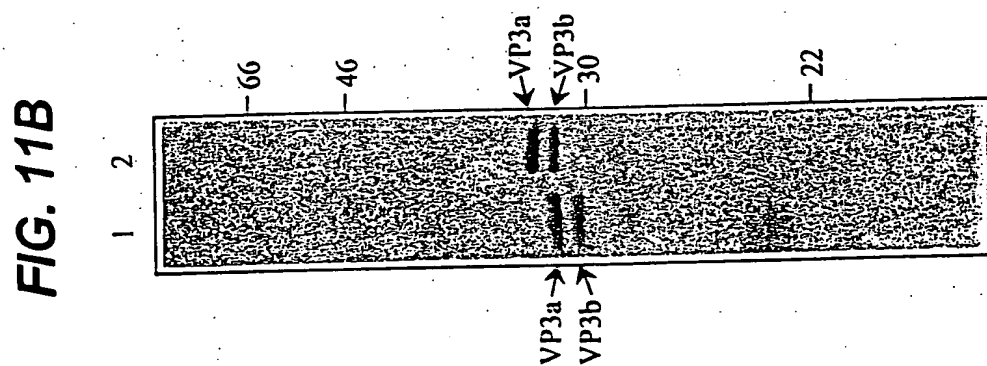
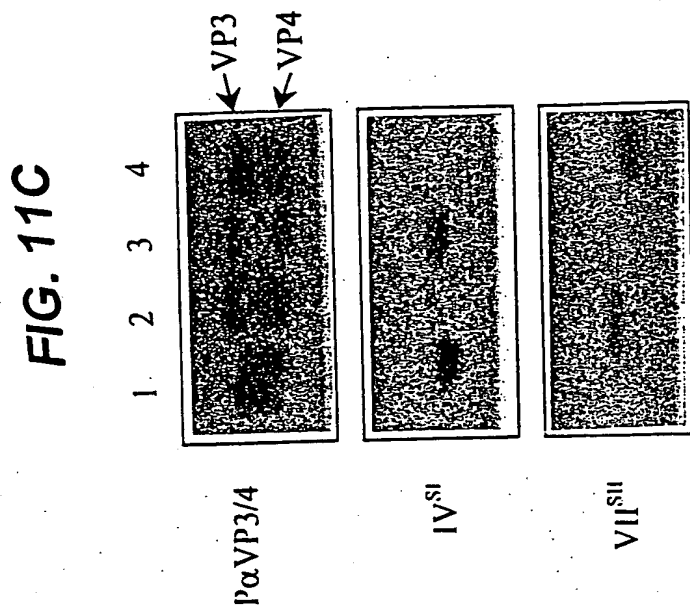


FIG. 10



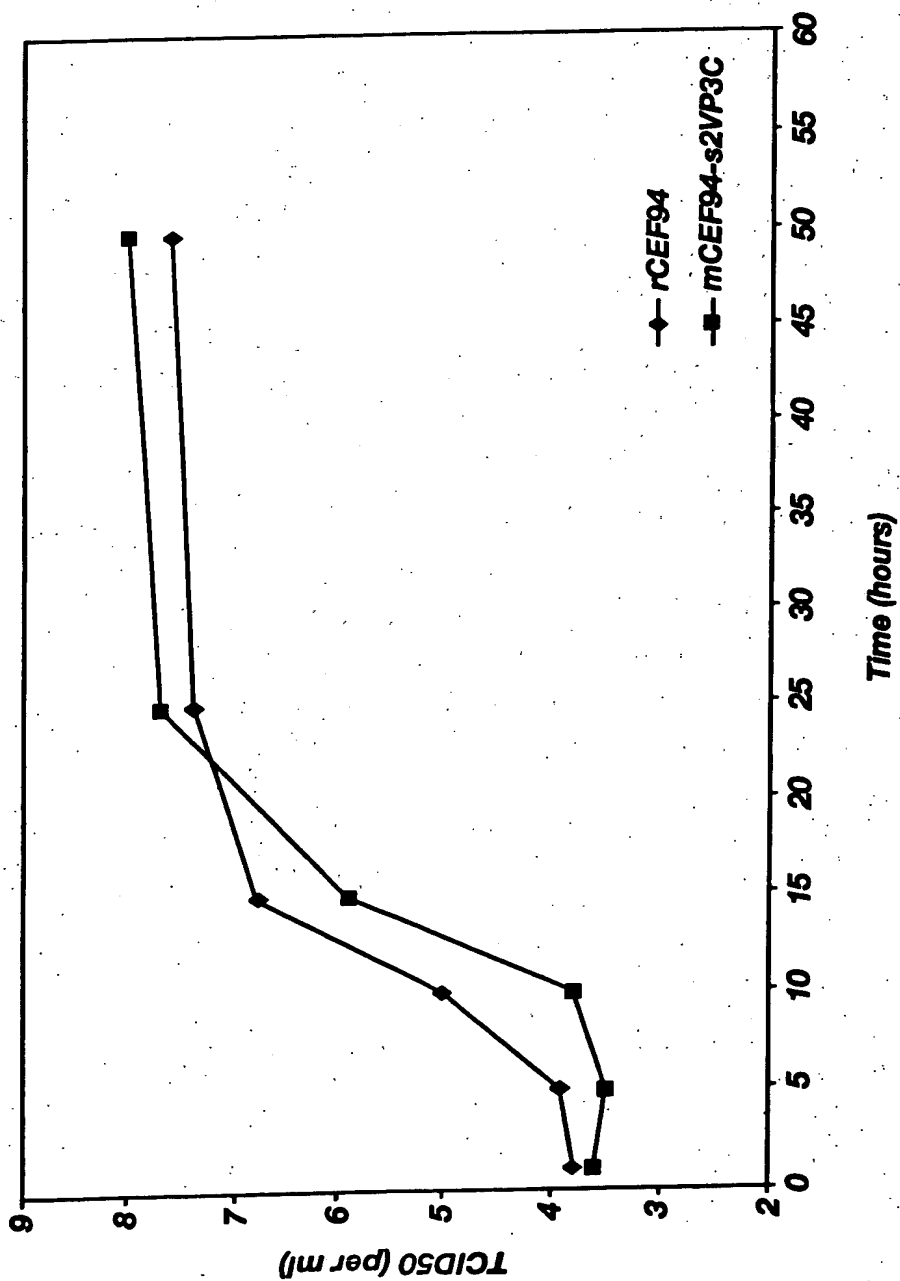
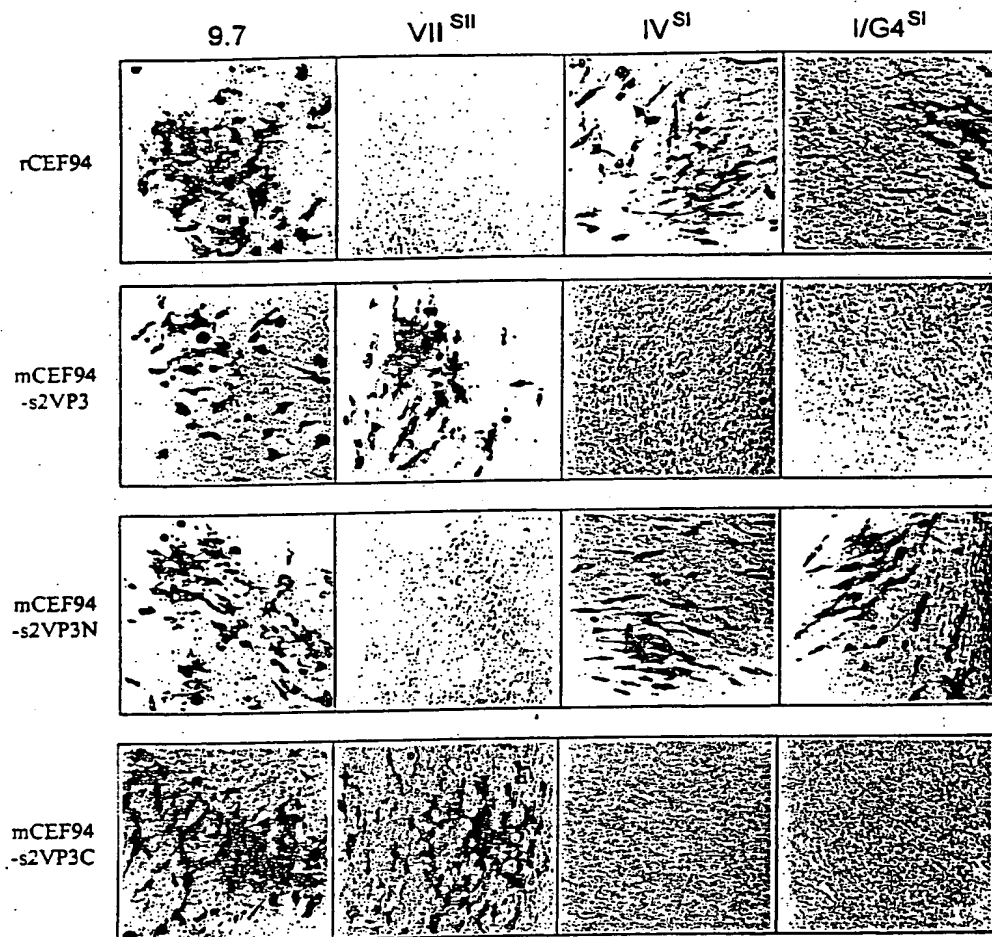


FIG. 12

FIG. 13



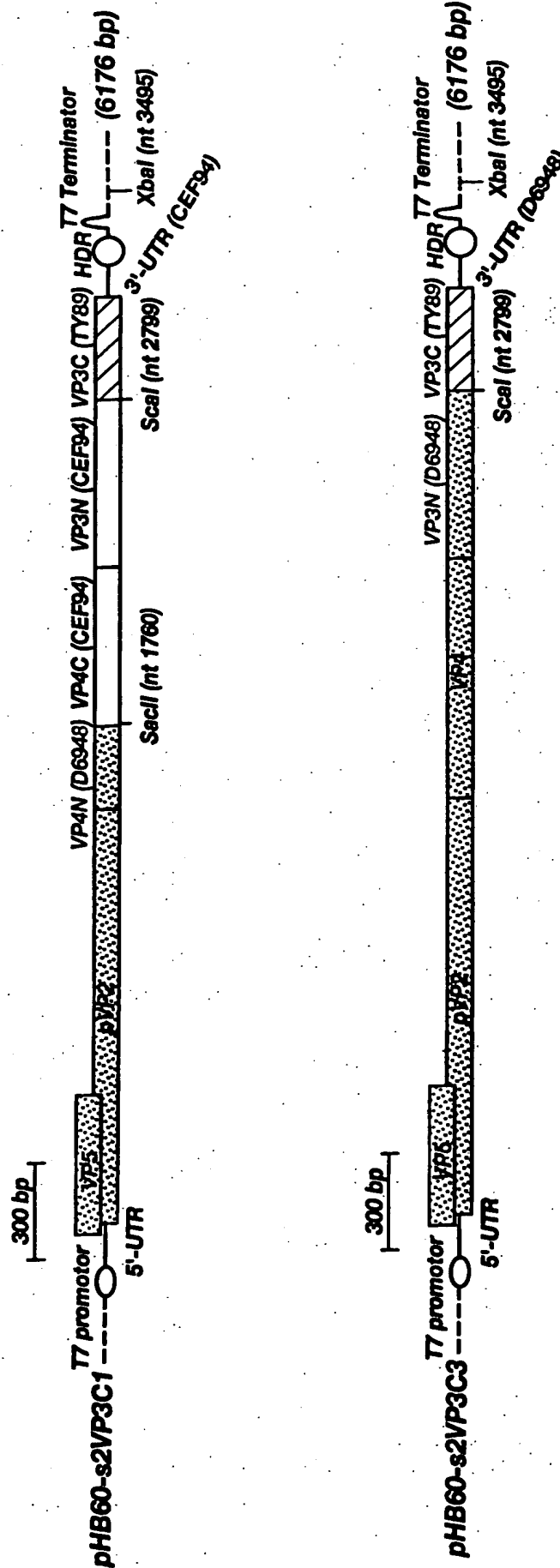
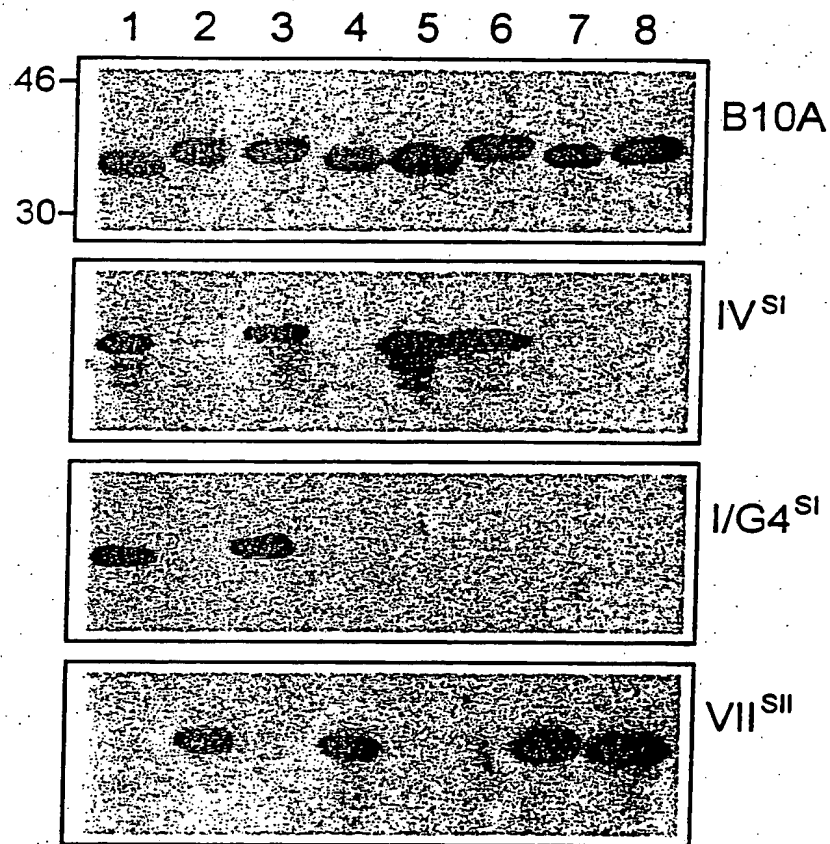


FIG. 14

FIG. 15



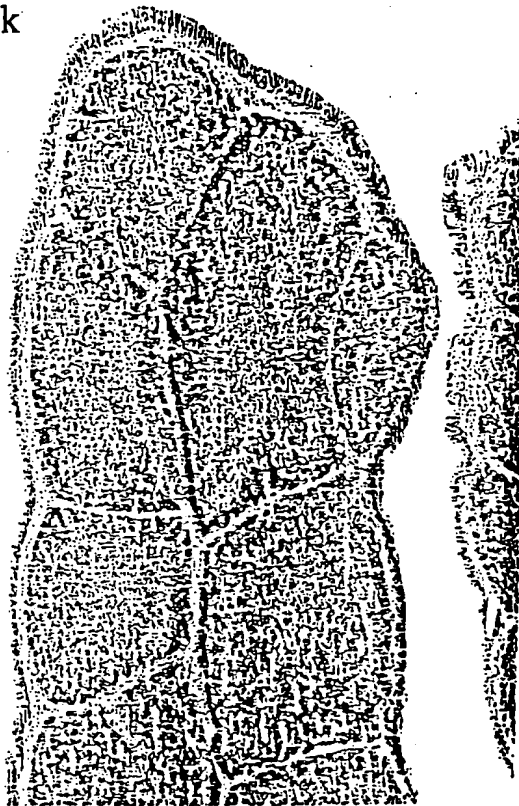
REPLACEMENT SHEET

FIG. 16

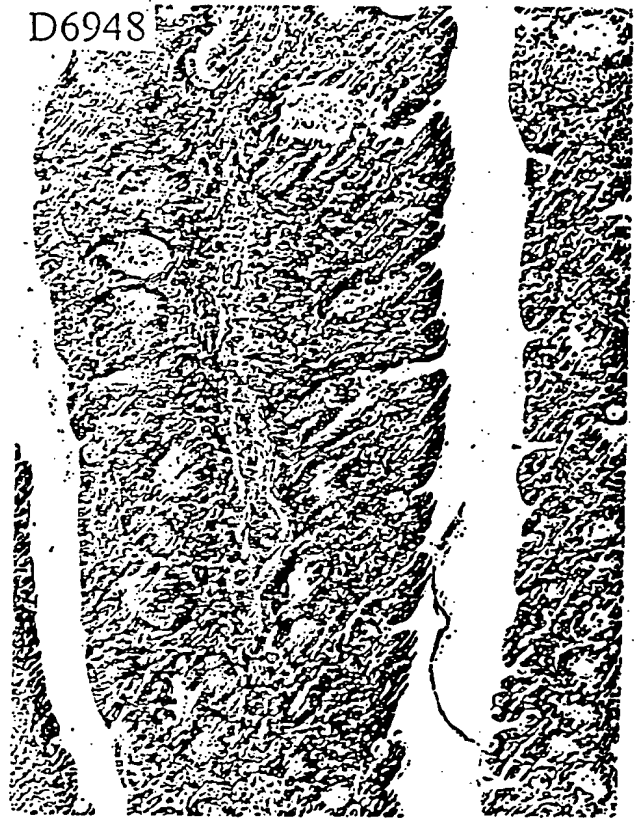
VP4 ← → VP3
 SacII
 CEF94-PP: 724-FPHNPRD WDRLPYLNL P YLPPNAGROY HLA MAASEFK ETPELESVR AMEAAANVDP 780
 D6948: D.....
 TY89-PP: 724-..... T..... F..... L..... D.....
 CEF94-PP: LFQSALSVM WLENGIVTD MANFALSDPN AHRMRNFLAN APQAGSKSOR AKYGTAGYGV 840
 D6948:
 TY89-PP: ..R...Q..... K.....
 SacI
 CEF94-PP: EARGPTPEEA QREKDTRISK KMETMGYFA TPEWVALNGH RGSPGOLKY WONTREIPDP 900
 D6948:
 TY89-PP: E. 900
 CEF94-PP: NEDYLDYVHA EKSRLASEEQ ILRAATSIYG APQAEPPQA FIDEVAKVYE INHGRGPNQE 960
 D6948:
 TY89-PP: P..... V..... R.....
 CEF94-PP: QMKDLLLTAM EMKHRNPRRA LPKPKPKPNA PTQPPGRLG RWIRTVSEDE LE 1012
 D6948: P..... A.....
 TY89-PP: P..... S.....

FIG. 17

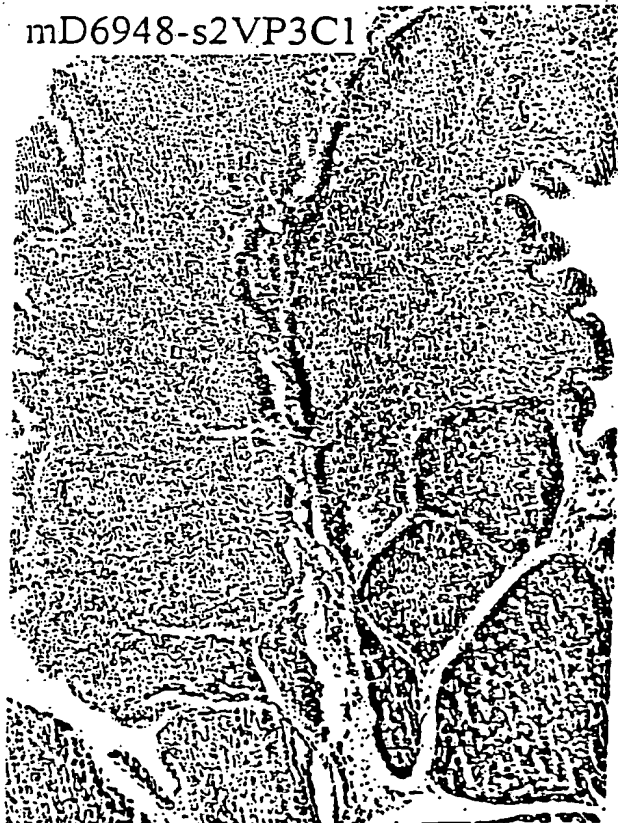
Mock



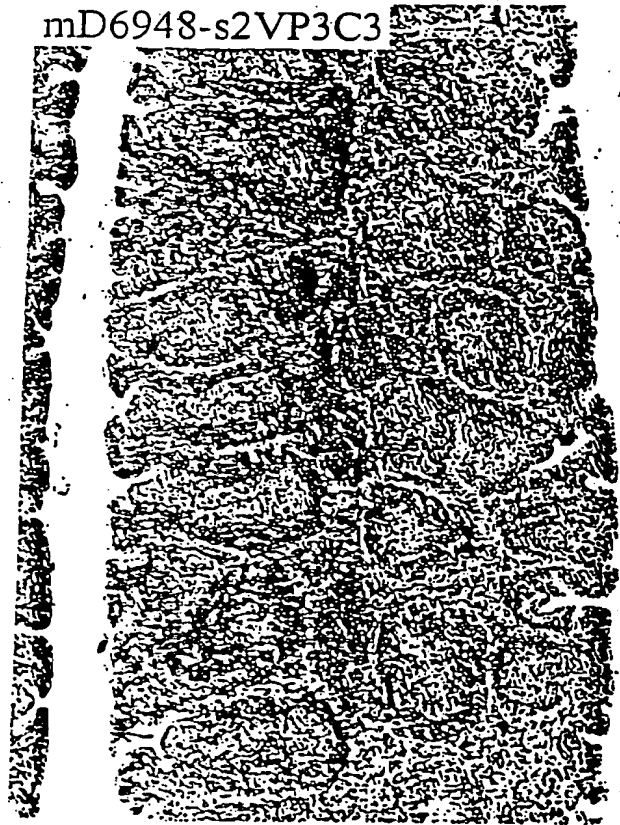
D6948



mD6948-s2VP3C1



mD6948-s2VP3C3



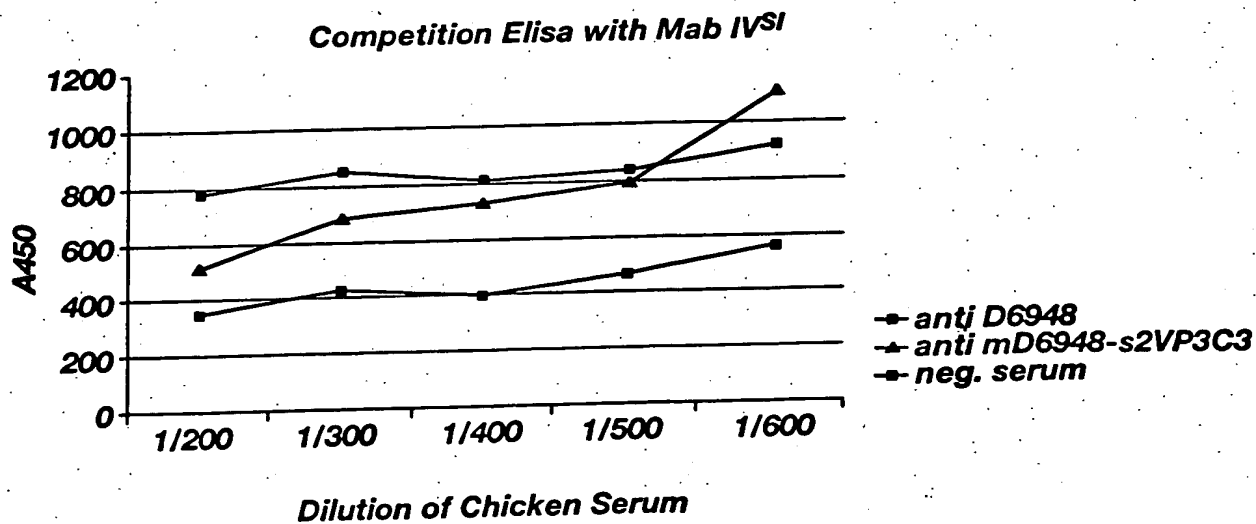
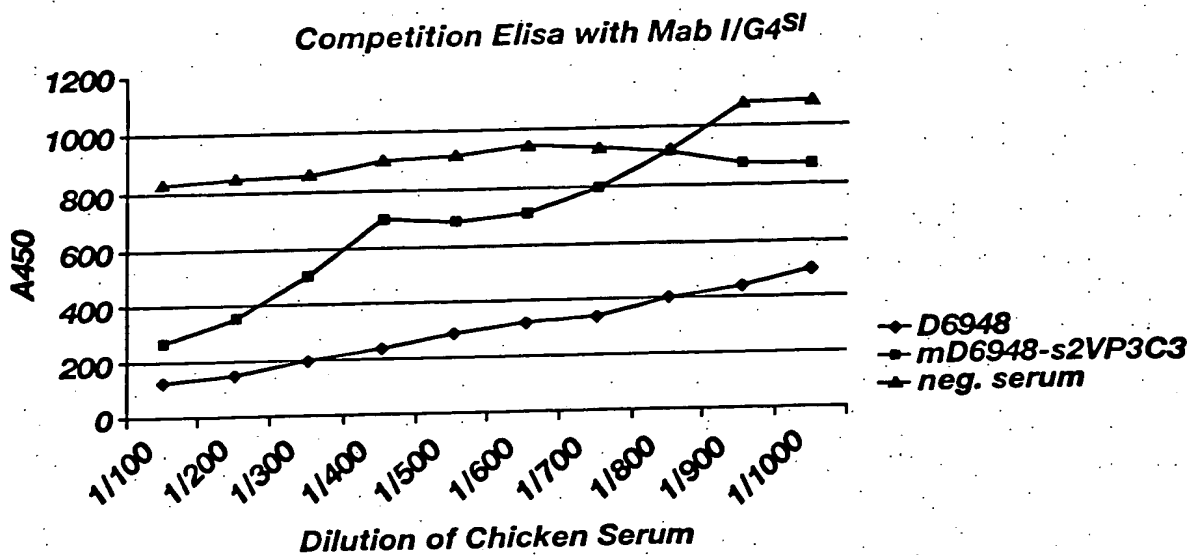


FIG. 18

FIG. 19

D6948-VP5: MSLMVSRDQ TNDRSDDPA RSNPTDCSVH TEPDANNRT GVHSGRHPRE AHSQVRDLDL 60
CEF94-VP5: ----K..G. 56

D6948-VP5: QFDCGGHRVR ANCLFPWFPW LNCGCSLHTA EQWELQVRSD APDCPEPTGQ LQLLOASESE 120
CEF94-VP5:I.. 116

D6948-VP5: SHSEVKHTPW WRLCTKWHHK RRDLPKPE 149
CEF94-VP5:S.R.... 145

D6948-PP:	MTNLQDQTOQ	IVPFIRSLM	PTTGPAIPD	DTLEKHTLRS	ETSTYNLTVG	DTGSLIVFF	60
CEF94-PP:							60
D6948-PP:	PGFPGSIVGA	HYTLQSNGY	KFDQMLLTAQ	NLPASYNCR	LVRSILTURS	STLPGGVYAL	120
CEF94-PP:							120
D6948-PP:	NGTINAVTFQ	GSLSELTDS	YNGLMSATAN	INDKIGNVLV	GEGVTLSLP	TSYDLGVRL	180
CEF94-PP:							180
D6948-PP:	GDPIPAIGLD	PKWVATCDSS	DRPRVYTITA	ADDYQFSSQY	QAGGVITLFL	SANIDAITSL	240
CEF94-PP:					P.		240
D6948-PP:	SIGGELVFQT	SVQGLLIGAT	IYLIGFDGTA	VITRAVAADN	GLTAGTDNLM	PFNIVIPTSE	300
CEF94-PP:	V.	H.V.		N.	T.	L.	300
D6948-PP:	ITQPITSIKL	EIVTSKSGGQ	AGDQMSWSAS	GSLAVTIHGG	NYPGALRPVT	LVAYERVATG	360
CEF94-PP:				R			360
D6948-PP:	SVVTVAGVSN	FELIPNELA	KNLVTEYGRF	DPGAMNYTKL	ILSERDRLGI	KTVWPTREYT	420
CEF94-PP:							420
D6948-PP:	DFREYFMEVA	DLNSPLKIAG	AFGFKDIIRA	LRRIAPVVS	TLFPPAAPLA	HAIGEVDYL	480
CEF94-PP:			I.				480
D6948-PP:	LGDEAQAASG	TARAASGKAR	AASGRIROLT	LAADKGYEVV	ANLFQVPQNP	VVDGILASPG	540
CEF94-PP:							540
D6948-PP:	ILRGAHNLDC	VLREGATLFP	VVITTVEDAM	TPKALNSKMF	AVIEGVREDL	QPPSQRGSFI	600
CEF94-PP:	V.						600
D6948-PP:	RTLSGHRVYG	YAPDGVLPLE	TGRDYTVVPI	DDVWDDSIML	SKDPIPIPVG	NSGNLAIAYM	660
CEF94-PP:							660
D6948-PP:	DVFRPKVPIH	VAMTGALNAY	GEIENVSFERS	TKLATAHRLG	LKLAGPGAED	VNTGSNWATE	720
CEF94-PP:		C	K.			P.	720

FIG. 20B

D6948-PP:	IKRFPNPRD	WDRLPYLNLP	YLPPNAGROY	DLAMAASEFK	ETPELESVR	AMEAAANVDP	780
CEF94-PP:	.....	.....	.....	H.....	.....	.....	780
D6948-PP:	LFQSALSVFM	WLEENGIVTD	MANFALSDPN	AHRMRNFLAN	APQAGSKSOR	AKYGTAGYGV	840
CEF94-PP:	.....	.....	.....	.....	.....	.....	840
D6948-PP:	EARGPTPEEA	QREKDRISK	KMETMGIYFA	TPEWVALNGH	RGSPGQLKY	WQNTREIPDP	900
CEF94-PP:	.....	.....	.....	.....	.....	.....	900
D6948-PP:	NEDYLDYVHA	EKSRLASEEQ	ILRAATSIYG	APGOAEPPOA	FIDEVAKVYE	INHGRGNQE	960
CEF94-PP:	.....	.....	.....	.....	.....	.....	960
D6948-PP:	QMKDLLLTAM	EMKHRNPRA	PPKPKPKPNA	PTQRPGRGLG	RWIRAVSDED	LE	1012
CEF94-PP:	.....	.....	L.....	.....	.....	T.....	1012

FIG. 21A

D6948-VP1: MSDVFNPOA RSKISAAFGI KPTAGQDVEE LLIPKVVWPP EDPLASPSRL AKFLRENGYK 60
CEF94-VP1: ...I.....T..... 60

D6948-VP1: ILQPRSLPEN EYEYTDQILP DLAWMQIEG AVLKPTLSLP IGDQEYFPKY YPTHRPSKEK 120
CEF94-VP1: V..... 120

D6948-VP1: PNAYPPDIAL LKQMIYLFLO VPEATDNLKD EVTLTLQNIR DKAYGSGTYM GOATRLVAMK 180
CEF94-VP1:NEG..... 180

D6948-VP1: EVATGRPNPK DPLKLGTYFE SIAQLDITL PVGPPGEDDK PWVPLTRVPS RMLVLTGDVD 240
CEF94-VP1: 240

D6948-VP1: GEFEVEDYLP KINKSSSGL PYVGRTKGET IGEMIAISNQ FLRELSALLK QGAGTKGSNK 300
CEF94-VP1: .D.....T... 300

D6948-VP1: KLLSMLSDY WYLSGCLLFP KAERYDKSTW LTKTRNIWSA PSPTHLMISM ITWPVMSNSP 360
CEF94-VP1: 360

D6948-VP1: NNVLNIEGCP SLYKENPFRG GLNRIVEM APDEPKALVY ADNIYIVHSN TWYSIDLEK 420
CEF94-VP1:L.E..... 420

D6948-VP1: EANCROHMQ AAMYIILTRG WSDNGDPMFN QTWATFAMNI APALVVDSSC LIMNLQIKTY 480
CEF94-VP1: 480

D6948-VP1: GQSGNAATE INNHLSTLV LDOWNLMKQP SPDSEEFKSI EDKLGINFKI ERSIDDIRGK 540
CEF94-VP1:R..R..... 540

D6948-VP1: LRQLVPLAQ GYLSGGVEPE QPSPTVELDL LGWSATYSKD LGIYVPVLDK ERLFCSAAYP 600
CEF94-VP1:L.....S..... 600

D6948-VP1: KGVENKSLKS KVGIEQAYKV VRYEALRLVG GWNYPLLNKA CKNNASAARR HLEAKGFPLD 660
CEF94-VP1:G..... 660

D6948-VP1: EFLAEWSELS EFGAEFEGFN IKLTVTPESL AELNRPVPPK PPNVNRPVNT GGLKAVSNAL 720
CEF94-VP1:S....K..... 720

FIG. 21B

D6948-VP1: KTGRYRNEAG LSGLVLLATA RSRLODAVKA KAEAEKLHKS KPDDPDADWF ERSETLSDLL 780
CEF94-VP1: 780

D6948-VP1: EKADIASKVA HSALVETSDA LEAVQSTSVY TPKYPEVKNP QTASNPPVVG LHPAKRATGV 840
CEF94-VP1: 840

D6948-VP1: QAALLGAGTS RPMGMEAPTR SKNAVKNMAGR RORQKESRQ- - 879
CEF94-VP1:Q P 881

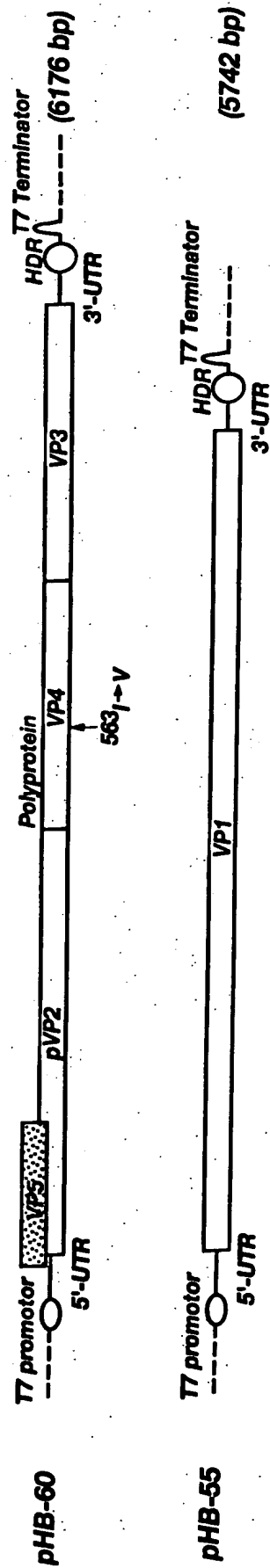


FIG. 22

FIG. 23C

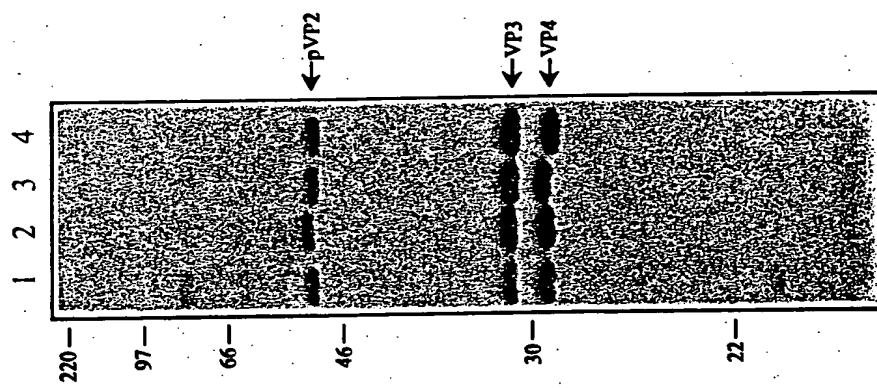


FIG. 23B

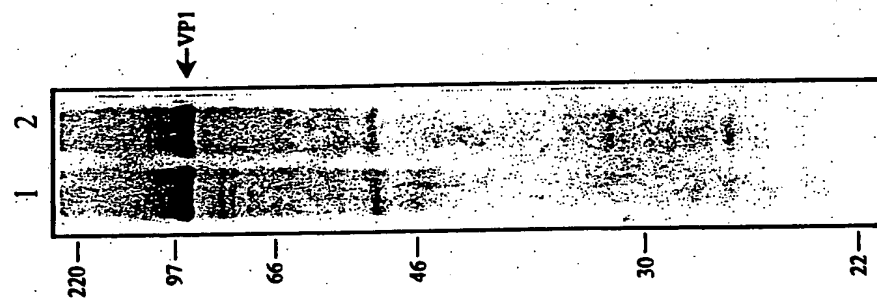


FIG. 23A

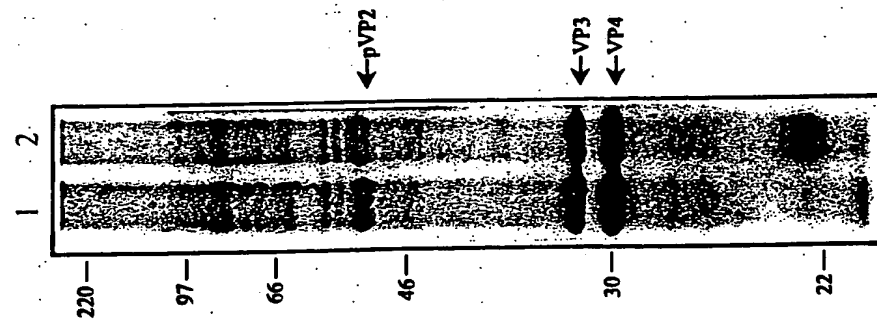
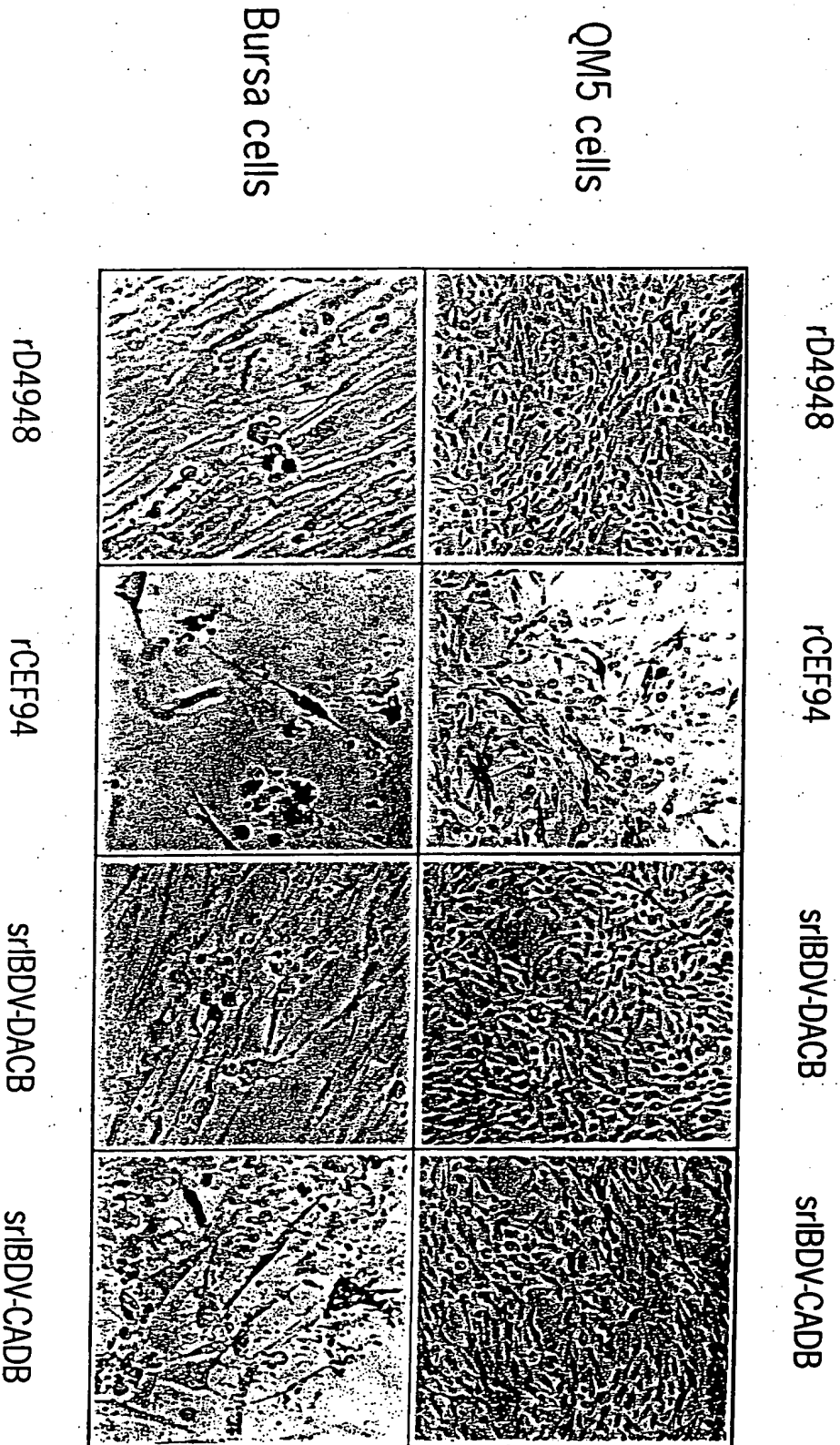


FIG. 24



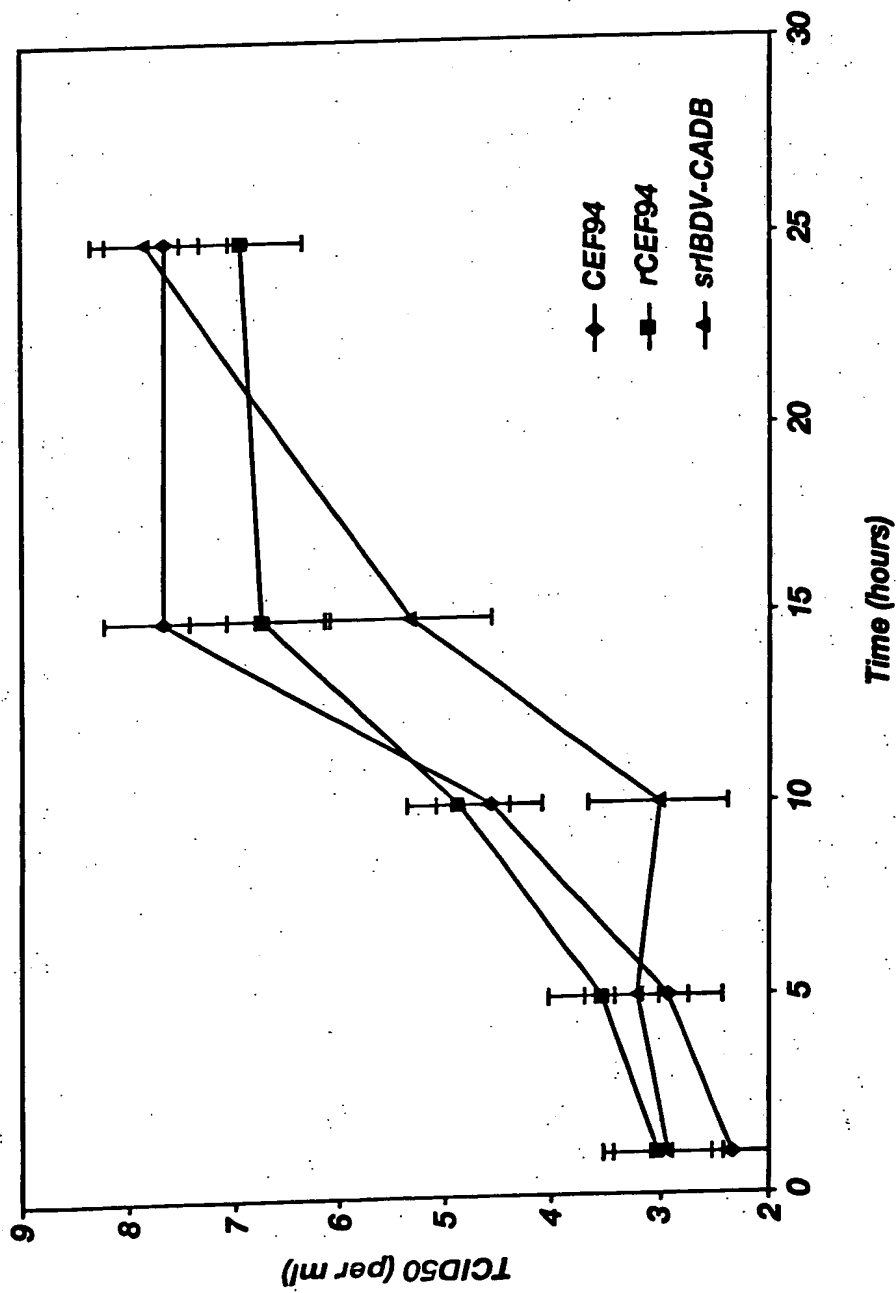


FIG. 25

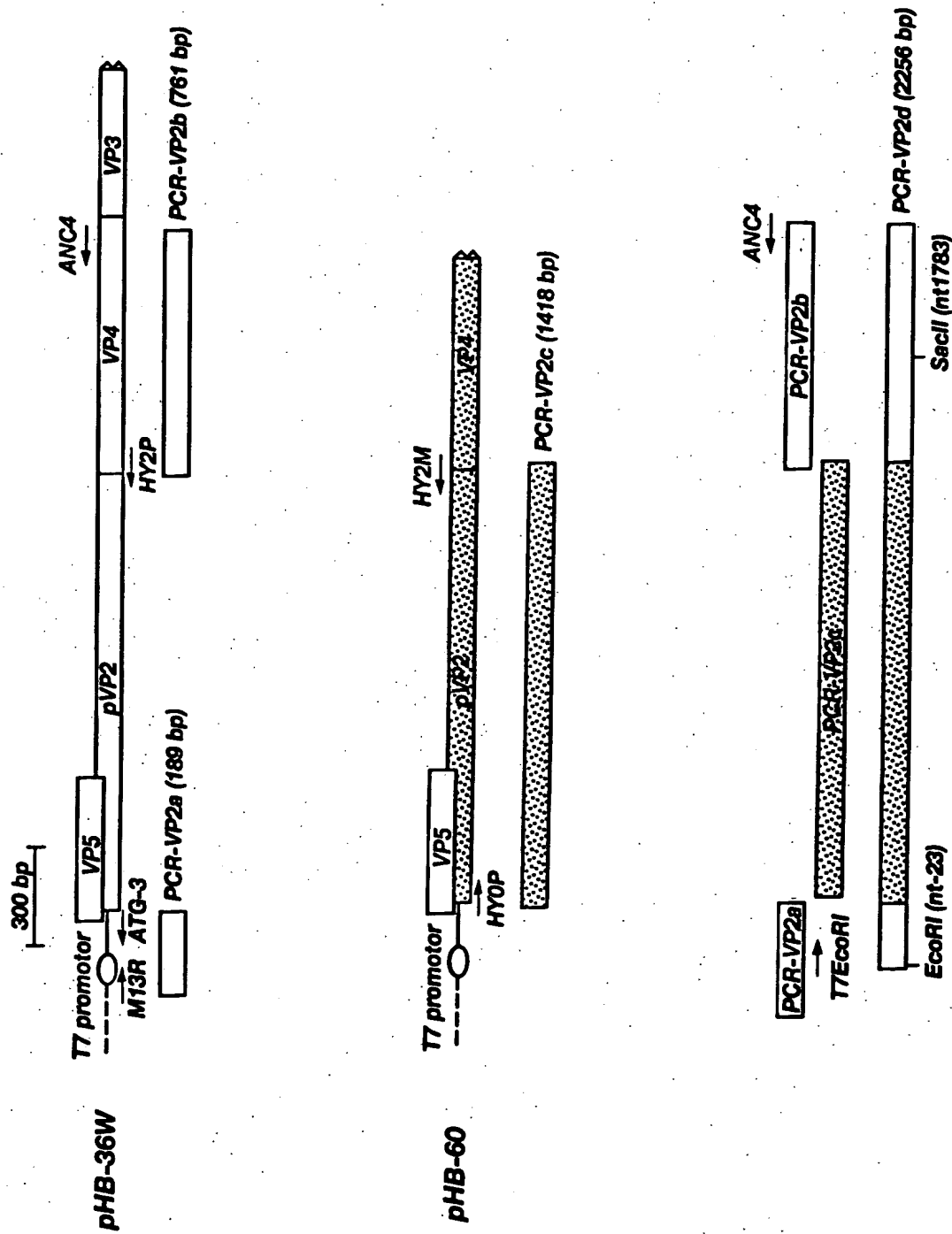


FIG. 26

FIG. 27

